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**QUARTERLY MONITORING REPORT
ACTIVE TREATMENT SYSTEMS
FOURTH QUARTER 2003**

**AMERICAN CHEMICAL SERVICE NPL SITE
GRIFFITH, INDIANA**

MWH File No. 2090601

Prepared For:

**American Chemical Service NPL Site RD/RA Executive Committee
Griffith, Indiana**

Prepared By:

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September 2004



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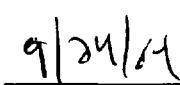
**AMERICAN CHEMICAL SERVICE NPL SITE
GRIFFITH, INDIANA**

Prepared For:

**American Chemical Service NPL Site RD/RA Executive Committee
Griffith, Indiana**

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ACRONYMS AND ABBREVIATIONS

AS	Air Sparge
BOD	Biological Oxygen Demand
BWES	Barrier Wall Extraction System
DPE	Dual Phase Extraction
EF1	Effluent sample
GAC	Granular Activated Carbon
Global	Global Engineering
GWTP	Groundwater Treatment Plant
IDEM	Indiana Department of Environmental Management
IN1	Influent sample
IN2	Duplicate influent sample
K-P	Kapica Pazmey
LDC	Laboratory Data Consultants
OFCA	Off-Site Containment Area
PCBs	Polychlorinated Biphenyls
PGCS	Perimeter Groundwater Containment System
PSVP	Performance Standard Verification Plan
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
SBPA	Still Bottoms Pond Area
SVOC	Semi-Volatile Organic Compounds
T-102	Aeration Equalization Tank
TSS	Total Suspended Solids
$\mu\text{g/L}$	micrograms per liter
U.S. EPA	United States Environmental Protection Agency
VOC	Volatile Organic Compounds

1.0 INTRODUCTION

MWH, on behalf of the ACS RD/RA Executive Committee, started up the on-site groundwater treatment system at the American Chemical Service NPL Site (ACS Site) in Griffith, Indiana on March 13, 1997. The groundwater treatment plant (GWTP) system was designed to treat groundwater from the Perimeter Groundwater Containment System (PGCS) and the Barrier Wall Extraction System (BWES). The original treatment consisted of a phase-separator for oil and free product removal, equalization tanks, a UV oxidation unit for destruction of organic constituents, and an air stripper to remove methylene chloride and other organics. The treatment also included a chemical precipitation and clarification unit to remove metals, a sand filter to remove suspended solids, and activated carbon vessels for final polishing of the treated groundwater before it was released to the west of the site.

In 2001, an activated sludge treatment unit was added to the process to reduce the volatile and semivolatile organic compounds (VOCs and SVOCs) in the collected groundwater. The activated sludge treatment process also reduces the amount of activated carbon required to treat the water. An aerated equalization tank was also added to the GWTP in 2001 to remove VOCs from the collected groundwater, oxidize metals to increase metals removal efficiency in the chemical precipitation unit, and equalize groundwater flow through the GWTP. The activated sludge system and aeration tank have been fully integrated into the process along with the other upgrade components. Startup and optimization of the catalytic oxidizer/scrubber air treatment unit was also conducted during 2001.

The treated effluent from the treatment system is discharged to the nearby wetlands, west of the treatment system, in accordance with Agency approvals.

In the fall of 2001, MWH began construction of an In-Situ Vapor Extraction (ISVE) system for the Off-Site Containment Area (OFCA) and the Kapica-Pazmey (K-P) Area, both within the area known as the Off-Site Area. The Off-Site Area ISVE system consists of 42 ISVE wells, a blower system, a thermal oxidizer/scrubber unit, and the associated mechanical and electrical components. The construction of the system was completed at the end of March 2002 and the system was started on May 1, 2002 after the startup of the thermal oxidizer and scrubber system was completed. Protocols and goals for the phased startup of the Off-Site System as defined in the Final Remedy (Montgomery Watson, 1999) were followed.

In the beginning of 2003, MWH began construction of an ISVE system for the Still Bottoms Pond Area (SBPA). The SBPA ISVE system consists of twenty-five ISVE wells, twenty-one dual phase extraction (DPE) wells, six air sparge wells, a blower system, and the associated mechanical and electrical components. The construction of the system was completed and the system was started in July of 2003. A new thermal oxidizer/scrubber unit was installed in the GWTP in the spring of 2003. The new unit was installed to treat vapors from both ISVE systems.

This Active Treatment Systems report summarizes effluent analytical data, catalytic oxidizer/scrubber (annually) and thermal oxidizer off-gas analytical data, ISVE process monitoring data, and water level gauging data collected from October 2003 through December 2003. This report also details modifications or upgrades to the active treatment systems during the reporting period.

2.0 GWTP COMPLIANCE MONITORING

2.1 INTRODUCTION

Effluent samples are collected on a regular schedule from the treatment system to demonstrate compliance with the discharge limits (Table 2.1) established by Indiana Department of Environmental Management (IDEM) and United States Environmental Protection Agency (U.S. EPA). The approved Performance Standard Verification Plan (PSVP) requires quarterly effluent sampling for biological oxygen demand (BOD), total suspended solids (TSS), SVOCs, metals, and polychlorinated biphenyls (PCBs) in the system, and monthly effluent sampling for pH and VOCs, as shown in the table below. In accordance with the PSVP, a full analysis effluent compliance sample was collected during October and analyzed for all of the analytes listed above. During November and December, the monthly effluent compliance samples were analyzed for VOCs and pH only.

Sampling and analyses were performed in accordance with the Quality Assurance Project Plan (QAPP) prepared by MWH for the ACS RD/RA Executive Committee in March 2001 and approved by the Agencies in November 2001. Quality control measures were also instituted in accordance with the PSVP. The following table and paragraphs present details on sampling and analyses, and also summarize the analytical data for the treatment system effluent.

Sampling Frequency Schedule – Groundwater Treatment System

Analytes	Cumulative Time From Startup*	Frequency
Flowrate	–	Continuous
BOD, TSS, SVOCs and Metals	181 days onward	Once per quarter
VOCs and pH	31 days onward	Once per month
PCBs	181 days onward	Once per quarter
PCBs in Sediment (one location)	–	Once per year

*Note: System was started up on March 13, 1997

2.2 EFFLUENT SAMPLING AND ANALYSES

Effluent samples were collected each month during the fourth quarter 2003. Samples were collected on the following dates and analyzed for the listed analytes for this reporting period:

- | | |
|-------------------|--|
| October 29, 2003 | full analysis (pH, TSS, BOD, Metals, VOCs, SVOCs, pentachlorophenol, and PCBs) |
| November 20, 2003 | pH and VOCs |
| December 29, 2003 | pH and VOCs |

The above samples were collected directly from a sample tap on the effluent line of the treatment system. The samples were placed in contaminant-free containers in accordance with the U.S. EPA Specifications and Guidance for Obtaining Contaminant-Free Sample Containers (U.S. EPA, 1992). Appropriate sample containers and preservatives, as specified in the QAPP, were used to collect and preserve the samples. Following sample collection, the temperature of the sample containers was maintained at or below 4° C in coolers. Chain-of-Custody forms were prepared to track the transfer of samples from the treatment system to the laboratories. In accordance with the approved QAPP, the effluent water samples were analyzed for the following parameters by the following analytical methods:

<u>Parameter</u>	<u>Analytical Method</u>
VOCs	SW-846 8260B
SVOCs	SW-846 8270C
Pentachlorophenol	SW-846 8270C and SIM
Pesticides/PCBs	EPA 608/SW-846 8081/8082
Metals (Excluding Mercury)	SW-846 6010
General Water Quality	
Parameters (TSS and BOD-5)	EPA 160.2 and 405.1
Mercury	SW-846 7470
pH	EPA 150.1

2.3 EFFLUENT ANALYTICAL RESULTS

The GWTP effluent monitoring data, summarized in Table 2.2, verify that the system effluent was compliant with the discharge limits presented in Table 2.1. No exceedences were reported in the October or November samples.

On January 13th, MWH received the initial laboratory results for the December effluent sample which indicated a methylene chloride concentration of 8.5 micrograms per liter ($\mu\text{g/L}$), exceeding the effluent discharge limit of 5 $\mu\text{g/L}$. The U.S. EPA and IDEM were informed via telephone of the exceedence and a letter was submitted on January 16th to describe the findings and MWH response actions.

Methylene chloride is a common compound used by laboratories for cleaning equipment and the laboratory used for analyzing the effluent sample, CompuChem, has had issues with methylene chloride detections in it's blanks in the past. Therefore, MWH believed that the detection could be associated with a laboratory quality assurance/quality control (QA/QC) issue. To evaluate this potential, an additional effluent sample was collected on January 14th and analyzed by CompuChem for VOCs on a rush turn around time to determine if the compound could be attributed to laboratory contaminants. The results of the resample indicated a methylene chloride concentration of 11 $\mu\text{g/L}$, still exceeding the discharge limit.

To further determine if the exceedences were a laboratory QA/QC issue, a third sample was collected and analyzed by a different laboratory, Simalabs International, on January 21st. The results of the Simalabs sampling indicated a methylene chloride concentration of 8.7 $\mu\text{g/L}$,

still exceeding the discharge limit. Therefore, it was determined that the elevated methylene chloride concentrations observed in the December 29th compliance sample was not the result of improper laboratory QA/QC procedures. The GWTP process was evaluated and the data review was performed by MWH engineers. This evaluation indicated that the methylene chloride previously adsorbed with the granular activated carbon (GAC) could be being displaced by other volatile compounds. The methylene chloride was subsequently released into the effluent.

The GWTP was placed in recirculation mode on January 23rd. On February 3rd, while the GWTP was operating in recirculation mode, the granular activated carbon (GAC) in the carbon vessels was changed out. The GWTP was placed back into normal operation on February 10th after samples collected indicated that the effluent was within the discharge limits for all compounds. Further detail will be provided in the Active Systems Monitoring Report for the first quarter of 2004.

The analytical data sheets for the compliance samples are provided in Appendix A.

Compuchem Laboratory of Cary, North Carolina performed the analysis of the samples. Laboratory Data Consultants (LDC) of Carlsbad, California performed third party data validation in accordance with the U.S. EPA National Functional Guidelines for Organic/Inorganic Data Review. Validation qualifiers are listed in Table 2.2 and are written in the margin of the analytical data sheets provided in Appendix A.

2.4 CATALYTIC OXIDIZER/SCRUBBER SAMPLING AND ANALYSIS

MWH began eight initial rounds of off-gas sampling of the catalytic oxidizer/scrubber described in the PSVP (MWH, April 1997) during April 2002. The eight rounds of sampling were completed during the third quarter of 2002. One sample was collected in October 2002 to verify the continued performance of the system. The off-gas was also sampled in December 2002 after repairs were made to the catalytic oxidizer/scrubber unit to ensure the unit was working properly. As discussed in the *Progress Report - November 2002 Activities* dated December 9, 2002, the off-gas sample from the catalytic oxidizer/scrubber will be sampled annually, in accordance with IDEM regulations and the PSVP. The 2003 annual sample was collected on June 5, 2003 and analyzed for VOCs and SVOCs. The 2004 annual sample is scheduled to be collected in June 2004. However, since the vapors generated by the GWTP are being treated by Therm Ox 2 and the catalytic oxidizer is not being operated, annual samples of the catalytic oxidizer will only be collected if the unit operates within that year.

3.0 ISVE SYSTEM MONITORING

3.1 THERMAL OXIDIZER OFF-GAS SAMPLING

In May 2003, a second thermal oxidizer/scrubber (therm ox) unit was installed at the Site. The unit was manufactured by Global Engineering (Global) and is designated as Therm Ox 2. Therm Ox 2 was installed at the GWTP to treat the vapor collected by the SBPA and Off-Site Area ISVE system. Beginning in the third quarter of 2003, vapors from the SBPA ISVE system were treated by the new unit. Monthly compliance sampling of Therm Ox 2 began in July 2003 when the system was fully operational. In September 2003, the vapors from both the Off-Site Area ISVE and the SBPA ISVE systems were treated by Therm Ox 2.

In October 2003, Ryan Construction, Inc. began reconfiguring the scrubber component of Therm Ox 1 in order to improve the performance of the unit. The reconfiguration of the unit was completed on December 26th and the unit was brought online on December 29th to treat vapors from the SBPA ISVE system. In the fourth quarter of 2003, compliance samples were collected on October 2nd, November 6th, and December 4th. The compliance samples collected during the fourth quarter of 2003 were all collected from Therm Ox 2.

Influent and effluent off-gas samples were collected directly from sample taps on the influent pipe to the thermal oxidizer and the discharge stack of the scrubber. One influent sample (labeled IN1) and one effluent sample (EF1) were collected. A duplicate influent sample (IN2) was also collected. The samples were collected to comply with the PSVP and QAPP and in accordance with laboratory guidelines. The VOC samples were collected using a summa canister and the SVOC samples were collected in sorbent tubes.

Sampling Frequency Schedule – ISVE System

Startup	Weekly for a four week period
Post-Startup	Monthly in accordance with the IDEM Air Permit Equivalency

Following sample collection, the SVOC, sample containers were maintained at or below 4°C in coolers. Chain-of-Custody forms were prepared to track the transfer of samples from the treatment system to the laboratories for extraction and analysis. In accordance with the approved QAPP, the off-gas samples were analyzed by the following analytical methods:

<u>Parameter</u>	<u>Analytical Method</u>
VOCs	TO-14
SVOCs	TO-13

3.2 SAMPLING RESULTS

The influent and effluent off-gas data summarized in Tables 3.1 and 3.2, verify that the off-gas from the thermal oxidizer was compliant since the concentrations were less than the IDEM discharge limit of three pounds of VOCs per hour for October, November, and December. For example, the VOC discharge reported from the December 4, 2003 sample was 0.07 pounds per hour which is approximately two percent of the discharge limit. The analytical data sheets for the compliance samples are provided in Appendix B.

In addition to the thermal oxidizer off-gas data collected during the fourth quarter, MWH also collected off-gas samples from the Off-Site ISVE system and the SBPA ISVE system influent lines. This data was collected in order to monitor the performance of these systems. The data from this monitoring is summarized in Tables 3.3 and 3.4.

Air Toxics Laboratories of Folsom, California analyzed the samples. The analytical results are summarized in Tables 3.1 and 3.2. MWH performed data validation in accordance with the QAPP and the National Functional Guidelines for Organic/Inorganic Data Review. Validation qualifiers are listed in Tables 3.1 and 3.2 and are written in the margin of the analytical data sheets provided in Appendix B.

3.3 ISVE SYSTEM MONITORING

Performance monitoring of the ISVE system was conducted in accordance with the PSVP (Montgomery Watson, June 1999). Extracted vapor flow rates and vacuums at individual ISVE wells and headers were collected on a routine basis. Additionally, VOC concentrations were measured at individual wells and headers using a flame/photo ionization detector (FID/PID).

The information collected during performance monitoring is used to evaluate and optimize the ISVE system. Data collected from the Off-Site ISVE system during the fourth quarter of 2003 is presented in Tables 3.5 and 3.6. Data that was collected from the SBPA ISVE system during the fourth quarter of 2003 is presented in Tables 3.7 and 3.8.

4.0 GWTP TREATMENT SYSTEM PROCESS MODIFICATIONS

During the fourth quarter of 2003, minor modifications were made in the GWTP treatment system process. The modifications are summarized below.

The installation of the nanofiltration unit was completed in October. Further information on the nanofiltration system was previously included in the Quarterly Monitoring Report for Active Treatment Systems, Third Quarter 2003 (March 2004).

The heat exchanger in holding tank T-2 was brought online on November 14th in order to maintain or elevate temperature in the activated sludge plant.

5.0 ISVE PROCESS MODIFICATION

Regular maintenance was performed on the ISVE System components during the fourth quarter of 2003. Reconstruction of the interior structure and exterior piping of the scrubber component of Therm Ox 1 was started in October and completed on December 26th. Vapors from both systems were treated by Therm Ox 2 until December 29th when Therm Ox 1 was brought online and vapors from the SBPA ISVE system were treated by Therm Ox 1.

6.0 PGCS AND BWES GAUGING ACTIVITIES

The PGCS groundwater extraction trenches were operated in "auto" mode during the fourth quarter of 2003. In "auto" mode, the PGCS extraction wells pump continuously unless there is a high water level in Aeration Equalization Tank (T-102) or a low water level in individual extraction wells. This mode is used to control the flowrate through the treatment system while at the same time creating an inward gradient along the PGCS trench. The GWTP also received influent from the On-Site and Off-Site components of the BWES and the SBPA DPE wells during the fourth quarter of 2003.

In accordance with the PSVP for the Site, a discussion on the effect of the PGCS and BWES on the water table near the Site is presented in each quarterly monitoring report. This section summarizes the groundwater elevations at the site during October, November, and December 2003. Groundwater elevation measurements were collected throughout the Site on December 9, 2003 as part of the groundwater monitoring program. The groundwater elevations and resulting contours outside the barrier wall are listed in Table 6.1 and plotted on Figure 6.1.

The barrier wall was constructed to prevent migration of contamination from the Site and the BWES was installed to dewater the Site for the ISVE system. Piezometers were installed in pairs, one piezometer of each pair on either side of the barrier wall, spaced along the barrier wall alignment. This allows measurement and tracking of water levels in order to ensure that the barrier wall is serving its designed function.

Table 6.1, BWES Water Level and Piezometer Pairs, presents the groundwater elevations inside and outside the barrier wall on December 9, 2003. They are illustrated on Figure 6.2. The groundwater elevation measurements were generally 1.0 foot to 6.13 feet higher outside the barrier wall. The data demonstrate that the barrier wall is successfully performing the intended function of isolating and protecting the groundwater outside the barrier wall from the known source areas of the Site inside the barrier wall. MWH will continue to collect water level measurements across the Site periodically as required in the PSVP.

As part of the optimization of the GWTP and BWES upgrades, MWH began active dewatering of the Off-Site Area through increased groundwater pumping rates on September 25, 2001. Active dewatering of the SBPA began on February 11, 2003 by the addition of the DPE wells. To keep track of the dewatering progress inside the barrier wall, water levels were collected from the various piezometers and air sparge (AS) wells on a regular basis, as shown in Table 6.2. Water levels regularly were measured at seven piezometers in the On-Site Area regularly throughout the quarter (P29, P31, P32, P36, P49, P-106, and P-108) and at seven piezometers and three air sparge wells in the Off-Site Area (P96, P110, P112, P113, P114, P116, P118, AS-7, AS-8, and AS-9). The water level data from these piezometers and AS wells are depicted graphically on Figures 6.3 and 6.4, which also reference the target water levels for each area.

The water levels collected in both the Off-Site Area and SBPA during the fourth quarter of 2003 were on average slightly higher than the water levels observed in previous quarters. The rise in water levels is most likely the result of the BWES being inoperative during most of the third quarter of 2003 due to lightning striking the GWTP in August and damaging the control system for the BWES extraction pumps. As a result of the lightning strike and the subsequent damage, the GWTP was operated in recirculation mode throughout most of the third quarter. Therefore, water levels rose in both the Off-Site Area and SBPA as a result of storm water infiltration in the On-Site Area and the migration of water groundwater from the On-Site Area to the Off-Site Area around the ends of the separation barrier wall. At multiple monitoring locations in the Off-Site Area, the water levels rose above the target water levels which historic water level data indicates had previously been achieved. The BWES was brought back online on September 21st. MWH will continue to monitor the water levels in each area to monitor progress in dewatering the site to re-achieve the target water levels. The target water levels were established to enhance the operation of the ISVE systems.

7.0 SYSTEM OPERATION

The GWTP operated as designed for approximately 85 percent of the fourth quarter of 2003 (based on days of operation). The system drew influent from the On-Site Area BWES, the Off-Site Area BWES, and the PGCS. The flowrate of the GWTP was increased to 30-40 gallons per minute (gpm) in November in order to expedite lowering the groundwater elevations in the SBPA and the Off-Site Area that were the result of limited GWTP operation during the second quarter of 2003.

The Off-Site Area ISVE system continued to operate as designed for approximately 85 percent of the fourth quarter of 2003 (based on days of operation). The system was shut down for routine maintenance and intermittent operation of the thermal oxidizer unit.

The SBPA ISVE system continued to operate as designed for approximately 80 percent of the fourth quarter of 2003 (based on days of operation). The system was shut down for routine maintenance and intermittent operation of the thermal oxidizer unit. In addition, the SBPA ISVE system was also shut down because the elevated groundwater levels in the SBPA restricted the flow of vapors through a number of wells.

8.0 REFERENCE

1. *Performance Standard Verification Plan, ACS NPL Site*, Montgomery Watson, June 1999.
2. *Quality Assurance Project Plan, ACS NPL Site*, Montgomery Watson, March 2001.
3. *U.S. EPA Specifications and Guidance for Obtaining Contaminant-Free Sample Containers*, United States Environmental Protection Agency, 1992.

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Tables

Table 2.1
Groundwater Treatment System Effluent Discharge Limits
American Chemical Service NPL Site
Griffith, Indiana

Groundwater Quality Parameter	Effluent Standard (Limit)
General Water Quality Parameters	
PH	6 - 9 S.U.
BOD-5	30 mg/L
TSS	30 mg/L
Inorganics	
Arsenic	50 µg/L
Beryllium	NE
Cadmium	4.1 µg/L
Manganese	NE
Mercury	0.02 µg/L (w/DL = 0.64)
Selenium	8.2 µg/L
Thallium	NE
Zinc	411 µg/L
Volatile Organics	
Acetone	6,800 µg/L
Benzene	5 µg/L
2-Butanone	210 µg/L
Chloromethane	NE
1,4 - Dichlorobenzene	NE
1,1 - Dichloroethane	NE
1,2 - Dichloroethene - cis	70 µg/L
Ethylbenzene	34 µg/L
Methylene chloride	5 µg/L
Tetrachloroethene	5 µg/L
Trichloroethene	5 µg/L
Vinyl chloride	2 µg/L
4 - Methyl - 2 - pentanone	15 µg/L
Semi-Volatile Organics	
bis(2 - Chloroethyl) ether	9.6 µg/L
bis(2 - Ethylhexyl) phthalate	6 µg/L
Isophorone	50 µg/L
4 - Methylphenol	34 µg/L
Pentachlorophenol	1 µg/L
PCBs	
PCBs	0.00056 µg/L (w/DL = 0.1 to 0.9)

Notes:

NE = No effluent limit established.

DL = Detection limit

Table 2.2
Summary of Effluent Analytical Results - Fourth Quarter 2003
Groundwater Treatment System
American Chemical Service NPL Site
Griffith, Indiana

Event Date	Month 77 10/29/2003	Month 78 11/20/2003	Month 79 12/29/2003	Month 79 Resample 1/15/2004	Month 79 Resample 1/21/2004	Effluent Limits	Lab Reporting Limits
pH	7.55	6.74 J	7.02	NS	NS	6-9	none
TSS	ND	NS	NS	NS	NS	30	10
BOD	ND	NS	NS	NS	NS	30	2
Arsenic	ND	NS	NS	NS	NS	50	3.4
Beryllium	0.49 B/UB	NS	NS	NS	NS	NE	0.2
Cadmium	ND	NS	NS	NS	NS	4.1	0.3
Manganese	76.2	NS	NS	NS	NS	NE	10
Mercury	ND	NS	NS	NS	NS	0.02 (w/DL = 0.64)	0.64
Selenium	ND	NS	NS	NS	NS	8.2	4.3
Thallium	ND	NS	NS	NS	NS	NE	5.7
Zinc	5.3 B/UB	NS	NS	NS	NS	411	1.2
Benzene	ND	ND	0.47 J/	0.058 J/	ND	5	0.5
Acetone	2 J/	ND	6.4 J/	6.6	ND	6,800	3
2-Butanone	4.1	ND	3	3.2	ND	210	3
Chloromethane	0.22 J/	ND	0.13 J/	0.15 J/	ND	NE	0.5
1,4-Dichlorobenzene	ND	0.33 J/	ND	ND	ND	NE	0.5
1,1-Dichloroethane	ND	ND	1.5	3.2	ND	NE	0.5
cis-1,2-Dichloroethene	ND	ND	2	4.1	6.8	70	0.5
Ethylbenzene	ND	0.096 J/	0.75	ND	ND	34	0.5
Methylene chloride	ND	0.14 J/	8.5	11	8.7	5	0.6
Tetrachloroethene	ND	0.22 J/	0.77	0.14 J/	ND	5	0.5
Trichloroethene	ND	0.12 JB/ 0.5 UB	0.21 J/	0.067 J/	ND	5	0.5
Vinyl chloride	ND	ND	0.15 J/	0.35 J/	ND	2	0.5
4-Methyl-2-pentanone	ND	ND	0.96 J/J	ND	ND	15	3
bis (2-Chloroethyl) ether	ND	NS	NS	NS	NS	9.6	9.6
bis(2-Ethylhexyl) - phthalate	ND	NS	NS	NS	NS	6	6
4 - Methylphenol	ND	NS	NS	NS	NS	34	10
Isophorone	ND	NS	NS	NS	NS	50	10
Pentachlorophenol	ND	NS	NS	NS	NS	1	1
PCB/Aroclor-1016	ND	NS	NS	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.5
PCB/Aroclor-1221	ND	NS	NS	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.92*
PCB/Aroclor-1232	ND	NS	NS	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.5
PCB/Aroclor-1242	ND	NS	NS	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.5
PCB/Aroclor-1248	ND	NS	NS	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.5
PCB/Aroclor-1254	ND	NS	NS	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.5
PCB/Aroclor-1260	ND	NS	NS	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.5

Notes:

Bolded result indicates a exceedence of the discharge limit
pH data is expressed in S.U.

Metals, VOC, SVOC and PCB data is expressed in ug/L

ND = Not detected

NS = This analyte was not sampled or analyzed for

NE = No effluent limit established.

* = Approved SW-846 method is incapable of achieving effluent limit.

Suffix Definitions:

J = Data qualifier added by laboratory

J_ = Data qualifier added by data validator

B = Compound is also detected in the blank

J = Result is detected below the reporting limit and is an estimated concentration

concentration and the compound is also detected in the method blank resulting in a potential high bias

UB = Analyte is not detected at or above the indicated concentration due to blank contamination

JB = Analyte is detected in the compliance sample below the reporting limit and is an estimated

concentration and the compound is also detected in the method blank resulting in a potential high bias

Table 3.1
Summary of Thermal Oxidizer Off-Gas Analytical Results for VOCs (Method TO-14) - Fourth Quarter
ACS NPL Site
Griffith, Indiana

Compounds	Units	Sampled 10/02/03					
		Influent Low	Influent High	ThermOx 2 Effluent EF1	Low	High	Average
1,1,1-Trichloroethane	ppbv	177,000	191,000	0.59 J/J	NC	NC	NC
1,1,2,2-Tetrachloroethane	ppbv	ND U	ND U	ND U	NC	NC	NC
1,1,2-Trichloroethane	ppbv	ND U	ND U	ND U	NC	NC	NC
1,1-Dichloroethane	ppbv	20,800	23,000	ND U	100.00%	100.00%	100.00%
1,1-Dichloroethene	ppbv	ND U	ND U	56	NC	NC	NC
1,2-Dichloroethane	ppbv	ND U	ND U	ND U	NC	NC	NC
1,2-Dichloropropane	ppbv	ND U	ND U	ND U	NC	NC	NC
2-Butanone (Methyl Ethyl Ketone)	ppbv	ND U	ND U	2.2 J/J	NC	NC	NC
2-Hexanone	ppbv	ND U	ND U	ND U	NC	NC	NC
4-Methyl-2-pentanone	ppbv	ND U	ND U	ND U	NC	NC	NC
Acetone	ppbv	ND U	ND U	16	NC	NC	NC
Benzene	ppbv	126,000	140,000	50	99.96%	99.96%	99.96%
Bromodichloromethane	ppbv	ND U	ND U	4.9	NC	NC	NC
Bromoform	ppbv	ND U	ND U	ND U	NC	NC	NC
Bromomethane	ppbv	ND U	ND U	0.8	NC	NC	NC
Carbon Disulfide	ppbv	ND U	ND U	2.4 J/J	NC	NC	NC
Carbon Tetrachloride	ppbv	ND U	ND U	4.2	NC	NC	NC
Chlorobenzene	ppbv	ND U	ND U	5.4	NC	NC	NC
Chloroethane	ppbv	ND U	ND U	ND U	NC	NC	NC
Chloroform	ppbv	9,300	10,200	25	99.73%	99.75%	99.74%
Chloromethane	ppbv	ND U	ND U	11	NC	NC	NC
cis-1,2-Dichloroethene	ppbv	70,000	75,000	11	99.98%	99.99%	99.98%
cis-1,3-Dichloropropene	ppbv	ND U	ND U	0.29 J/J	NC	NC	NC
Dibromochloromethane	ppbv	ND U	ND U	1.3	NC	NC	NC
Ethyl Benzene	ppbv	90,000	96,000	0.45 J/J	NC	NC	NC
m,p-Xylene	ppbv	390,000	420,000	2.6	100.00%	100.00%	100.00%
Methylene Chloride	ppbv	189,000	199,700	13	99.99%	99.99%	99.99%
o-Xylene	ppbv	108,000	118,000	0.7	100.00%	100.00%	100.00%
Styrene	ppbv	ND U	ND U	2.4	NC	NC	NC
Tetrachloroethene	ppbv	179,000	191,000	89	99.95%	99.95%	99.95%
Toluene	ppbv	940,000	1,040,000	3.7	100.00%	100.00%	100.00%
trans-1,2-Dichloroethene	ppbv	ND U	ND U	7.9	NC	NC	NC
trans-1,3-Dichloropropene	ppbv	ND U	ND U	ND U	NC	NC	NC
Trichloroethene	ppbv	142,000	152,000	44	99.97%	99.97%	99.97%
Vinyl Chloride	ppbv	ND U	ND U	16	NC	NC	NC
Total	ppbv	2,441,100	2,655,900	370.83	99.98%	99.99%	99.99%
Total	lb/hr	99.43	107.98	0.01	99.99%	99.99%	99.99%

Notes:

J - Laboratory data qualifier
 U - Data validation qualifier
 NC - Not calculated
 ND - Non-detect
 ppbv - parts per billion volume
 lb/hr - pounds per hour

Total VOCs in lb/hr calculated based on 2351 acfm (10/10/03).

The total concentration and mass loading were calculated using all detected concentrations including estimated detections (denoted with J or U qualifiers)

Destruction efficiencies were not calculated if either influent sample or the effluent sample was estimated
 Destruction efficiencies were not calculated where the effluent result exceeded either influent result

Qualifiers:

J - Result is estimated
 U - below reported quantitation limit

Table 3.1
Summary of Thermal Oxidizer Off-Gas Analytical Results for VOCs (Method TO-14) - Fourth Quarter
ACS NPL Site
Griffith, Indiana

		Sampled 11/06/03						
		Influent	Influent	ThermOx 2	Destruction Efficiency			
Compounds	Units	Low	High	Effluent EF1	Low	High	Average	
1,1,1-Trichloroethane	ppbv	154,000	154,000	13	99.99%	99.99%	99.99%	
1,1,2,2-Tetrachloroethane	ppbv	ND	ND	ND U	NC	NC	NC	
1,1,2-Trichloroethane	ppbv	ND	ND	ND U	NC	NC	NC	
1,1-Dichloroethane	ppbv	17,000	17,000	1.5	99.99%	99.99%	99.99%	
1,1-Dichloroethene	ppbv	3,100	3,200	53	98.29%	98.34%	98.32%	
1,2-Dichloroethane	ppbv	4,470	4,780	0.72	99.98%	99.98%	99.98%	
1,2-Dichloropropane	ppbv	2,200	2,300	0.31 J/J	NC	NC	NC	
2-Butanone (Methyl Ethyl Ketone)	ppbv	68,300	69,400	3.7	99.99%	99.99%	99.99%	
2-Hexanone	ppbv	ND	ND	ND U	NC	NC	NC	
4-Methyl-2-pentanone	ppbv	37,200	38,200	2.2 J/J	NC	NC	NC	
Acetone	ppbv	83,600	85,600	12	99.99%	99.99%	99.99%	
Benzene	ppbv	120,000	121,000	91	99.92%	99.92%	99.92%	
Bromodichloromethane	ppbv	ND	ND	18	NC	NC	NC	
Bromoform	ppbv	ND	ND	13	NC	NC	NC	
Bromomethane	ppbv	ND	ND	1.4	NC	NC	NC	
Carbon Disulfide	ppbv	ND	ND	0.84 J/J	NC	NC	NC	
Carbon Tetrachloride	ppbv	ND	ND	3.8	NC	NC	NC	
Chlorobenzene	ppbv	820	830	5.6	99.32%	99.33%	99.32%	
Chloroethane	ppbv	ND	ND	0.81	NC	NC	NC	
Chloroform	ppbv	9,600	9,800	8.3	99.91%	99.92%	99.91%	
Chloromethane	ppbv	ND	ND	18	NC	NC	NC	
cis-1,2-Dichloroethene	ppbv	74,000	75,000	37	99.95%	99.95%	99.95%	
cis-1,3-Dichloropropene	ppbv	ND	ND	0.56 J/J	NC	NC	NC	
Dibromochloromethane	ppbv	ND	ND	24	NC	NC	NC	
Ethyl Benzene	ppbv	137,000	141,000	27	99.98%	99.98%	99.98%	
m,p-Xylene	ppbv	530,000	540,000	110	99.98%	99.98%	99.98%	
Methylene Chloride	ppbv	102,000	103,000	20	99.98%	99.98%	99.98%	
o-Xylene	ppbv	161,000	170,000	28	99.98%	99.98%	99.98%	
Styrene	ppbv	ND	ND	8	NC	NC	NC	
Tetrachloroethene	ppbv	238,000	250,000	170	99.93%	99.93%	99.93%	
Toluene	ppbv	1,060,000	1,070,000	200	99.98%	99.98%	99.98%	
trans-1,2-Dichloroethene	ppbv	ND	ND	12	NC	NC	NC	
trans-1,3-Dichloropropene	ppbv	ND	ND	0.47 J/J	NC	NC	NC	
Trichloroethene	ppbv	149,000	151,000	74	99.95%	99.95%	99.95%	
Vinyl Chloride	ppbv	4,410	4,550	21	99.52%	99.54%	99.53%	
Total	ppbv	2,955,700	3,010,660	979	99.97%	99.97%	99.97%	
Total	lb/hr	115.21	117.55	0.04	99.97%	99.97%	99.97%	

Notes:

/ - Laboratory data qualifier
/_ - Data validation qualifier
NC - Not calculated
ND - Non-detect
ppbv - parts per billion volume
lb/hr - pounds per hour

Total VOCs in lb/hr calculated based on 2271 acfm (11/06/03).

The total concentration and mass loading were calculated using all detected concentrations including estimated detections (denoted with J or UJ qualifiers)

Destruction efficiencies were not calculated if either influent sample or the effluent sample was estimated
Destruction efficiencies were not calculated where the effluent result exceeded either influent result

Qualifiers:

J - Result is estimated
U - below reported quantitation limit

Table 3.1
Summary of Thermal Oxidizer Off-Gas Analytical Results for VOCs (Method TO-14) - Fourth Quarter
ACS NPL Site
Griffith, Indiana

Compounds	Units	Sampled on 12/04/03									
		ThermOx 2		ThermOx 2		ThermOx 2		ThermOx 2		Destruction Efficiency	
		Influent IN1	Infulent IN2	Effluent EF1		Effluent EF1 Dup	Effluent Avg.	Low	High	Average	
1,1,1-Trichloroethane	ppbv	46,000	40,000	45		44	44.5	99.89%	99.90%	99.90%	
1,1,2,2-Tetrachloroethane	ppbv	ND	U	ND	U	ND	U	ND	NC	NC	NC
1,1,2-Trichloroethane	ppbv	ND	U	ND	U	0.68	J/J	0.73	J/J	0.71	NC
1,1-Dichloroethane	ppbv	5,600	5,100	10		11		10.5	99.79%	99.81%	99.80%
1,1-Dichloroethene	ppbv	1,900	1,700	200		210		205	87.94%	89.21%	88.58%
1,2-Dichloroethane	ppbv	1,400	1,300	5		4.8		4.9	99.62%	99.65%	99.64%
1,2-Dichloropropane	ppbv	690	J/J	660	J/J	0.97	J/J	1.2	J/J	1.1	NC
2-Butanone (Methyl Ethyl Ketone)	ppbv	18,000		17,000		38		39		38.5	99.77%
2-Hexanone	ppbv	ND	U	ND	U	ND	U	ND	NC	NC	NC
4-Methyl-2-pentanone	ppbv	9,000		9,400		7.8		7.4		7.6	99.92%
Acetone	ppbv	30,000		27,000		150		160		155	99.43%
Benzene	ppbv	30,000		28,000		310		300		305	98.91%
Bromodichloromethane	ppbv	ND	U	ND	U	2.8		2.5		2.65	NC
Bromoform	ppbv	ND	U	ND	U	ND	U	ND	NC	NC	NC
Bromomethane	ppbv	ND	U	ND	U	1.4	J/J	1.2	J/J	1.3	NC
Carbon Disulfide	ppbv	970	J/J	630	J/J	2.7	J/J	2.8	J/J	2.75	NC
Carbon Tetrachloride	ppbv	ND	U	ND	U	2.1		1.9		2.0	NC
Chlorobenzene	ppbv	ND	U	ND	U	5.2		5.4		5.3	NC
Chloroethane	ppbv	ND	U/UJ	ND	U/UJ	ND	U/UJ	ND	U/UJ	ND	NC
Chloroform	ppbv	3,900		3,200		79		79		79	97.53%
Chloromethane	ppbv	ND	U	ND	U	36		38		37	NC
cis-1,2-Dichloroethene	ppbv	24,000		18,000		75		73		74	99.59%
cis-1,3-Dichloropropene	ppbv	ND	U	ND	U	0.81	J/J	0.97	J/J	0.89	NC
Dibromochloromethane	ppbv	ND	U	ND	U	ND	U	ND	NC	NC	NC
Ethyl Benzene	ppbv	22,000		20,000		26		26		26	99.87%
m,p-Xylene	ppbv	88,000		87,000		76		80		78	99.91%
Methylene Chloride	ppbv	37,000		33,000		180		180		180	99.45%
o-Xylene	ppbv	28,000		30,000		26		26		26	99.91%
Styrene	ppbv	ND	U	ND	U	30		32		31	NC
Tetrachloroethene	ppbv	38,000		34,000		240		240		240	99.29%
Toluene	ppbv	230,000		200,000		410		420		415	99.79%
trans-1,2-Dichloroethene	ppbv	ND	U	ND	U	35		36		35.5	NC
trans-1,3-Dichloropropene	ppbv	ND	U	ND	U	1.1	J/J	ND	U	1.1	NC
Trichloroethene	ppbv	33,000		27,000		160		160		160	99.41%
Vinyl Chloride	ppbv	1,900		1,000		53		55		54	94.60%
Total	ppbv	649,360		583,990		2,210		2,237.90		2,224.28	99.62%
Total	lb/hr	23.01		20.69		0.07		0.07		0.07	99.65%
											99.68%
											99.66%

Notes:

-J - Laboratory data qualifier

-U - Data validation qualifier

NC - Not calculated

ND - Non-detect

ppbv - parts per billion volume

lb/hr - pounds per hour

Total VOCs in lb/hr calculated based on 2118 acfm (11/25/03).

The total concentration and mass loading were calculated using all detected concentrations including estimated detections (denoted with J or UJ qualifiers)

Destruction efficiencies were not calculated if either influent sample or the effluent sample was estimated

Destruction efficiencies were not calculated where the effluent result exceeded either influent result

Qualifiers:

J - Result is estimated

U - below reported quantitation limit

Table 3.2
Summary of Thermal Oxidizer Off-Gas Analytical Results
for SVOCs (Method TO-13) - Fourth Quarter 2003
ACS NPL Site
Griffith, Indiana

Compounds	Units	Sampled on 10/02/03						
		Influent		ThermOx 2		Destruction Efficiency		
		Low	High	Effluent EF1	Low	High	Average	
1,2,4-Trichlorobenzene	µg	ND	U	ND	U	NC	NC	NC
1,2-Dichlorobenzene	µg	96		167		ND	100.00%	100.00% 100.00%
1,3-Dichlorobenzene	µg	5.4		8.8		ND	100.00%	100.00% 100.00%
1,4-Dichlorobenzene	µg	14.8		26.2		ND	100.00%	100.00% 100.00%
2,4,5-Trichlorophenol	µg	ND	U	ND	U	ND	NC	NC NC
2,4,6-Trichlorophenol	µg	ND	U	ND	U	ND	NC	NC NC
2,4-Dichlorophenol	µg	ND	U	ND	U	ND	NC	NC NC
2,4-Dimethylphenol	µg	ND	U	ND	U	ND	NC	NC NC
2,4-Dinitrophenol	µg	ND	U	ND	U	ND	NC	NC NC
2,4-Dinitrotoluene	µg	ND	U	ND	U	ND	NC	NC NC
2,6-Dinitrotoluene	µg	ND	U	ND	U	ND	NC	NC NC
2-Choronaphthalene	µg	ND	U	ND	U	ND	NC	NC NC
2-Chlorophenol	µg	ND	U	ND	U	ND	NC	NC NC
2-Methylnaphthalene	µg	5.5		10.3		ND	100.00%	100.00% 100.00%
2-Methylphenol (o-Cresol)	µg	ND	U	ND	U	ND	NC	NC NC
2-Nitroaniline	µg	ND	U	ND	U	ND	NC	NC NC
2-Nitrophenol	µg	ND	U	ND	U	ND	NC	NC NC
3,3'-Dichlorobenzidine	µg	ND	U	ND	U	ND	NC	NC NC
3-Nitroaniline	µg	ND	U	ND	U	ND	NC	NC NC
4,6-Dinitro-2-methylphenol	µg	ND	U	ND	U	ND	NC	NC NC
4-Bromophenyl-phenyl Ether	µg	ND	U	ND	U	ND	NC	NC NC
4-Chloro-3-methylphenol	µg	ND	U	ND	U	ND	NC	NC NC
4-Chloroaniline	µg	ND	U	ND	U	ND	NC	NC NC
4-Chlorophenyl-phenyl Ether	µg	ND	U	ND	U	ND	NC	NC NC
4-Methylphenol	µg	ND	U	ND	U	ND	NC	NC NC
4-Nitroaniline	µg	ND	U	ND	U	ND	NC	NC NC
4-Nitrophenol	µg	ND	U	ND	U	ND	NC	NC NC
Acenaphthene	µg	ND	U	ND	U	ND	NC	NC NC
Acenaphthylene	µg	ND	U	ND	U	ND	NC	NC NC
Anthracene	µg	ND	U	ND	U	ND	NC	NC NC
Benz(a)anthracene	µg	ND	U	ND	U	ND	NC	NC NC
Benz(a)pyrene	µg	ND	U	ND	U	ND	NC	NC NC
Benz(b)fluoranthene	µg	ND	U	ND	U	ND	NC	NC NC
Benz(g,h,i)perylene	µg	ND	U	ND	U	ND	NC	NC NC
Benz(k)fluoranthene	µg	ND	U	ND	U	ND	NC	NC NC
bis(2-Chloroethoxy) Methane	µg	ND	U	ND	U	ND	NC	NC NC
bis(2-Chloroethyl) Ether	µg	ND	U	ND	U	ND	NC	NC NC
bis(2-Ethylhexyl)phthalate	µg	ND	U	ND	U	ND	NC	NC NC
Butylbenzylphthalate	µg	ND	U	ND	U	ND	NC	NC NC
Chrysene	µg	ND	U	ND	U	ND	NC	NC NC
Dibenz(a,h)anthracene	µg	ND	U	ND	U	ND	NC	NC NC
Dibenzofuran	µg	ND	U	ND	U	ND	NC	NC NC
Diethylphthalate	µg	ND	U	ND	U	ND	NC	NC NC
Dimethylphthalate	µg	ND	U	ND	U	ND	NC	NC NC
di-n-Butylphthalate	µg	ND	U	ND	U	ND	NC	NC NC
Di-n-Octylphthalate	µg	ND	U	ND	U	ND	NC	NC NC
Fluoranthene	µg	ND	U	ND	U	ND	NC	NC NC
Fluorene	µg	ND	U	ND	U	ND	NC	NC NC
Hexachlorobenzene	µg	ND	U	ND	U	ND	NC	NC NC
Hexachlorobutadiene	µg	ND	U	ND	U	ND	NC	NC NC
Hexachlorocyclopentadiene	µg	ND	U	ND	U	ND	NC	NC NC
Hexachloroethane	µg	ND	U	ND	U	ND	NC	NC NC
Indeno(1,2,3-c,d)pyrene	µg	ND	U	ND	U	ND	NC	NC NC
Isophorone	µg	ND	U	ND	U	ND	NC	NC NC
Naphthalene	µg	30.7		56		ND	100.00%	100.00% 100.00%
Nitrobenzene	µg	ND	U	ND	U	ND	NC	NC NC
N-Nitroso-di-n-propylamine	µg	ND	U	ND	U	ND	NC	NC NC
N-Nitrosodiphenylamine	µg	ND	U	ND	U	ND	NC	NC NC
Pentachlorophenol	µg	ND	U	ND	U	ND	NC	NC NC
Phenanthrene	µg	ND	U	ND	U	ND	NC	NC NC
Phenol	µg	ND	U	ND	U	ND	NC	NC NC
Pyrene	µg	ND	U	ND	U	ND	NC	NC NC
Total	mg	152.40		268.30		ND	100.00 %	100.00 % 100.00 %

Table 3.2
Summary of Thermal Oxidizer Off-Gas Analytical Results
for SVOCs (Method TO-13) - Fourth Quarter 2003
ACS NPL Site
Griffith, Indiana

Compounds	Units	Sampled 11/06/03					
		Influent Low	Influent High	ThermOx 2 Effluent EF1	Low	High	Average
1,2,4-Trichlorobenzene	µg	ND	U	ND	U	NC	NC
1,2-Dichlorobenzene	µg	135		152	ND	U	100.00%
1,3-Dichlorobenzene	µg	6.3		7.7	ND	U	100.00%
1,4-Dichlorobenzene	µg	19.7		23.1	ND	U	100.00%
2,4,5-Trichlorophenol	µg	ND	U	ND	U	NC	NC
2,4,6-Trichlorophenol	µg	ND	U	ND	U	NC	NC
2,4-Dichlorophenol	µg	ND	U	ND	U	NC	NC
2,4-Dimethylphenol	µg	ND	U	ND	U	NC	NC
2,4-Dinitrophenol	µg	ND	U	ND	U	NC	NC
2,4-Dinitrotoluene	µg	ND	U	ND	U	NC	NC
2,6-Dinitrotoluene	µg	ND	U	ND	U	NC	NC
2-Chloronaphthalene	µg	ND	U	ND	U	NC	NC
2-Chlorophenol	µg	ND	U	ND	U	NC	NC
2-Methylnaphthalene	µg	9.6		11.8	ND	U	100.00%
2-Methylphenol (o-Cresol)	µg	ND	U	ND	U	NC	NC
2-Nitroaniline	µg	ND	U	ND	U	NC	NC
2-Nitrophenol	µg	ND	U	ND	U	NC	NC
3,3'-Dichlorobenzidine	µg	ND	U	ND	U	NC	NC
3-Nitroaniline	µg	ND	U	ND	U	NC	NC
4,6-Dinitro-2-methylphenol	µg	ND	U	ND	U	NC	NC
4-Bromophenyl-phenyl Ether	µg	ND	U	ND	U	NC	NC
4-Chloro-3-methylphenol	µg	ND	U	ND	U	NC	NC
4-Chloroaniline	µg	ND	U	ND	U	NC	NC
4-Chlorophenyl-phenyl Ether	µg	ND	U	ND	U	NC	NC
4-Methylphenol	µg	ND	U	ND	U	NC	NC
4-Nitroaniline	µg	ND	U	ND	U	NC	NC
4-Nitrophenol	µg	ND	U	ND	U	NC	NC
Acenaphthene	µg	ND	U	ND	U	NC	NC
Acenaphthylene	µg	ND	U	ND	U	NC	NC
Anthracene	µg	ND	U	ND	U	NC	NC
Benz(a)anthracene	µg	ND	U	ND	U	NC	NC
Benz(a)pyrene	µg	ND	U	ND	U	NC	NC
Benz(b)fluoranthene	µg	ND	U	ND	U	NC	NC
Benz(g,h,i)perylene	µg	ND	U	ND	U	NC	NC
Benz(k)fluoranthene	µg	ND	U	ND	U	NC	NC
bis(2-Chloroethoxy) Methane	µg	ND	U	ND	U	NC	NC
bis(2-Chloroethyl) Ether	µg	ND	U	ND	U	NC	NC
bis(2-Ethylhexyl)phthalate	µg	1.36		1.54	0.82	J/J	NC
Butylbenzylphthalate	µg	ND	U	ND	U	1.6	J/JB
Chrysene	µg	ND	U	ND	U	NC	NC
Dibenz(a,h)anthracene	µg	ND	U	ND	U	NC	NC
Dibenzofuran	µg	ND	U	ND	U	NC	NC
Diethylphthalate	µg	ND	U	ND	U	0.38	J/J
Dimethylphthalate	µg	ND	U	ND	U	NC	NC
di-n-Butylphthalate	µg	ND	U	ND	U	0.53	J/J
Di-n-Octylphthalate	µg	ND	U	ND	U	NC	NC
Fluoranthene	µg	ND	U	ND	U	NC	NC
Fluorene	µg	ND	U	ND	U	NC	NC
Hexachlorobenzene	µg	ND	U	ND	U	NC	NC
Hexachlorobutadiene	µg	ND	U	ND	U	NC	NC
Hexachlorocyclopentadiene	µg	ND	U	ND	U	NC	NC
Hexachloroethane	µg	ND	U	ND	U	NC	NC
Indeno(1,2,3-c,d)pyrene	µg	ND	U	ND	U	NC	NC
Isophorone	µg	19.4		23.8	ND	U	100.00%
Naphthalene	µg	67		83	ND	U	100.00%
Nitrobenzene	µg	ND	U	ND	U	NC	NC
N-Nitroso-di-n-propylamine	µg	ND	U	ND	U	NC	NC
N-Nitrosodiphenylamine	µg	ND	U	ND	U	NC	NC
Pentachlorophenol	µg	ND	U	ND	U	NC	NC
Phenanthrene	µg	ND	U	ND	U	NC	NC
Phenol	µg	ND	U	ND	U	NC	NC
Pyrene	µg	ND	U	ND	U	NC	NC
Total	mg	258.36		302.94	3.33	98.71%	98.90%
						98.81%	

Table 3.2
Summary of Thermal Oxidizer Off-Gas Analytical Results
for SVOCs (Method TO-13) - Fourth Quarter 2003
ACS NPL Site
Griffith, Indiana

Compounds	Units	Sampled 12/04/03						
		ThermOx 2		ThermOx 2		Destruction Efficiency		
		Influent IN1	Influent IN2	Effluent EF1		Low	High	Average
1,2,4-Trichlorobenzene	µg	ND	U	ND	U	NC	NC	NC
1,2-Dichlorobenzene	µg	30.00	26.00	ND	U	100.00%	100.00%	100.00%
1,3-Dichlorobenzene	µg	1.50	1.20	ND	U	100.00%	100.00%	100.00%
1,4-Dichlorobenzene	µg	4.60	3.80	ND	U	100.00%	100.00%	100.00%
2,4,5-Trichlorophenol	µg	ND	U	ND	U	NC	NC	NC
2,4,6-Trichlorophenol	µg	ND	U	ND	U	NC	NC	NC
2,4-Dichlorophenol	µg	ND	U	ND	U	NC	NC	NC
2,4-Dimethylphenol	µg	ND	U	ND	U	NC	NC	NC
2,4-Dinitrophenol	µg	ND	U	ND	U	NC	NC	NC
2,4-Dinitrotoluene	µg	ND	U	ND	U	NC	NC	NC
2,6-Dinitrotoluene	µg	ND	U	ND	U	NC	NC	NC
2-Chloronaphthalene	µg	ND	U	ND	U	NC	NC	NC
2-Chlorophenol	µg	ND	U	ND	U	NC	NC	NC
2-Methylnaphthalene	µg	2.20	1.80	ND	U	100.00%	100.00%	100.00%
2-Methylphenol (o-Cresol)	µg	ND	U	ND	U	NC	NC	NC
2-Nitroaniline	µg	ND	U	ND	U	NC	NC	NC
2-Nitrophenol	µg	ND	U	ND	U	NC	NC	NC
3,3'-Dichlorobenzidine	µg	ND	U	ND	U	NC	NC	NC
3-Nitroaniline	µg	ND	U	ND	U	NC	NC	NC
4,6-Dinitro-2-methylphenol	µg	ND	U	ND	U	NC	NC	NC
4-Bromophenyl-phenyl Ether	µg	ND	U	ND	U	NC	NC	NC
4-Chloro-3-methylphenol	µg	ND	U	ND	U	NC	NC	NC
4-Chloroaniline	µg	ND	U	ND	U	NC	NC	NC
4-Chlorophenyl-phenyl Ether	µg	ND	U	ND	U	NC	NC	NC
4-Methylphenol	µg	ND	U	ND	U	NC	NC	NC
4-Nitroaniline	µg	ND	U	ND	U	NC	NC	NC
4-Nitrophenol	µg	ND	U	ND	U	NC	NC	NC
Acenaphthene	µg	ND	U	ND	U	NC	NC	NC
Acenaphthylene	µg	ND	U	ND	U	NC	NC	NC
Anthracene	µg	ND	U	ND	U	NC	NC	NC
Benzo(a)anthracene	µg	ND	U	ND	U	NC	NC	NC
Benzo(a)pyrene	µg	ND	U	ND	U	NC	NC	NC
Benzo(b)fluoranthene	µg	ND	U	ND	U	NC	NC	NC
Benzo(g,h,i)perylene	µg	ND	U	ND	U	NC	NC	NC
Benzo(k)fluoranthene	µg	ND	U	ND	U	NC	NC	NC
bis(2-Chloroethoxy) Methane	µg	ND	U	ND	U	NC	NC	NC
bis(2-Chloroethyl) Ether	µg	1.50	1.40	ND	U	100.00%	100.00%	100.00%
bis(2-Ethylhexyl)phthalate	µg	0.66	J/J	0.84	J/J	ND	U	NC
Butylbenzylphthalate	µg	4.60	J/J	ND	U	NC	NC	NC
Chrysene	µg	ND	U	ND	U	NC	NC	NC
Dibenz(a,h)anthracene	µg	ND	U	ND	U	NC	NC	NC
Dibenzofuran	µg	ND	U	ND	U	NC	NC	NC
Diethylphthalate	µg	ND	U	ND	U	NC	NC	NC
Dimethylphthalate	µg	ND	U	ND	U	NC	NC	NC
di-n-Butylphthalate	µg	ND	U	0.49	J/J	ND	U	NC
Di-n-Octylphthalate	µg	ND	U	ND	U	NC	NC	NC
Fluoranthene	µg	ND	U	ND	U	NC	NC	NC
Fluorene	µg	ND	U	ND	U	NC	NC	NC
Hexachlorobenzene	µg	ND	U	ND	U	NC	NC	NC
Hexachlorobutadiene	µg	0.73	J/J	0.72	J/J	ND	U	NC
Hexachlorocyclopentadiene	µg	ND	U	ND	U	NC	NC	NC
Hexachloroethane	µg	ND	U	ND	U	NC	NC	NC
Indeno(1,2,3-c,d)pyrene	µg	ND	U	ND	U	NC	NC	NC
Isophorone	µg	3.60		3.10		ND	U	100.00%
Naphthalene	µg	13.00		12.00		ND	U	100.00%
Nitrobenzene	µg	ND	U	ND	U	NC	NC	NC
N-Nitroso-di-n-propylamine	µg	ND	U	ND	U	NC	NC	NC
N-Nitrosodiphenylamine	µg	ND	U	ND	U	NC	NC	NC
Pentachlorophenol	µg	ND	U	ND	U	NC	NC	NC
Phenanthrene	µg	ND	U	ND	U	NC	NC	NC
Phenol	µg	ND	U	ND	U	NC	NC	NC
Pyrene	µg	ND	U	ND	U	NC	NC	NC
Total	mg	62.39		51.35		ND		100.00%
						100.00 %	100.00 %	100.00 %

Table 3.2
Summary of Thermal Oxidizer Off-Gas Analytical Results
for SVOCs (Method TO-13) - Fourth Quarter 2003
ACS NPL Site
Griffith, Indiana

Notes:

/ - Laboratory data qualifier

/_ - Data validation qualifier

μg - Microgram

NC - Not calculated

ND - Non-detect

The total concentration and mass loading were calculated using all detected

Destruction efficiencies were not calculated if either influent sample or the effluent sample was estimated

Destruction efficiencies were not calculated where the effluent result exceeded either influent result

Qualifiers:

J - Result is estimated

JB - Analyte detected in the method blank resulting in potential bias high. Reported concentration is estimated.

U - below reported quantitation limit

Table 3.3
Summary of In-Situ Vapor Extraction (ISVE) System Influent Monitoring Data
for VOCs (Method TO-14) - Fourth Quarter 2003
ACS NPL Site
Griffith, Indiana

Compounds	Units	Sampled on 10/02/03					
		Off-Site ISVE System		On-Site ISVE System		Influent IN1	Influent IN2
1,1,1-Trichloroethane	ppbv	140,000		130,000		51,000	47,000
1,1,2,2-Tetrachloroethane	ppbv	ND	U	ND	U	ND	ND
1,1,2-Trichloroethane	ppbv	ND	U	ND	U	ND	ND
1,1-Dichloroethane	ppbv	20,000		18,000		3,000	2,800
1,1-Dichloroethene	ppbv	ND	U	1,500	J/J	ND	ND
1,2-Dichloroethane	ppbv	4,300		4,400		ND	ND
1,2-Dichloropropane	ppbv	ND	U	1,200	J/J	ND	ND
2-Butanone (Methyl Ethyl Ketone)	ppbv	81,000		73,000		ND	ND
2-Hexanone	ppbv	ND	U	ND	U	ND	ND
4-Methyl-2-pentanone	ppbv	27,000		23,000		ND	ND
Acetone	ppbv	120,000		110,000		5,200	J/J
Benzene	ppbv	110,000		99,000		30,000	27,000
Bromodichloromethane	ppbv	ND	U	ND	U	ND	ND
Bromoform	ppbv	ND	U	ND	U	ND	ND
Bromomethane	ppbv	ND	U	ND	U	ND	ND
Carbon Disulfide	ppbv	ND	U	ND	U	ND	ND
Carbon Tetrachloride	ppbv	ND	U	ND	U	ND	ND
Chlorobenzene	ppbv	ND	U	ND	U	ND	ND
Chloroethane	ppbv	ND	U	ND	U	ND	ND
Chloroform	ppbv	8,000		7,200		2,100	2,200
Chloromethane	ppbv	ND	U	ND	U	ND	ND
cis-1,2-Dichloroethene	ppbv	33,000		31,000		42,000	39,000
cis-1,3-Dichloropropene	ppbv	ND	U	ND	U	ND	ND
Dibromochloromethane	ppbv	ND	U	ND	U	ND	ND
Ethyl Benzene	ppbv	54,000		51,000		42,000	39,000
m,p-Xylene	ppbv	240,000		230,000		180,000	160,000
Methylene Chloride	ppbv	190,000		180,000		9,700	9,000
o-Xylene	ppbv	72,000		67,000		46,000	41,000
Styrene	ppbv	ND	U	ND	U	ND	ND
Tetrachloroethene	ppbv	100,000		97,000		91,000	82,000
Toluene	ppbv	610,000		550,000		430,000	390,000
trans-1,2-Dichloroethene	ppbv	ND	U	ND	U	ND	ND
trans-1,3-Dichloropropene	ppbv	ND	U	ND	U	ND	ND
Trichloroethene	ppbv	83,000		77,000		69,000	65,000
Vinyl Chloride	ppbv	ND	U	1,200	J/J	1,400	ND
Total	ppbv	1,892,300		1,751,500		1,002,400	904,000
Total	lb/hr	31.58		29.32		23.50	21.26

Notes:

/ - Laboratory data qualifier

/_ - Data validation qualifier

ND - Non-detect

ppbv - parts per billion volume

lb/hr - pounds per hour

Qualifiers:

J - Result is estimated

U - Below reported quantitation limit

E - Compound exceeds the upper level of calibration range of instrument

Table 3.3
Summary of In-Situ Vapor Extraction (ISVE) System Influent Monitoring Data
for VOCs (Method TO-14) - Fourth Quarter 2003
ACS NPL Site
Griffith, Indiana

Compounds	Units	Sampled on 11/06/03					
		Off-Site ISVE System		On-Site ISVE System			
		Influent IN1	Influent IN2	Influent IN1	Influent IN2	Influent IN1	Influent IN2
1,1,1-Trichloroethane	ppbv	100,000	100,000	54,000	54,000	ND	ND
1,1,2,2-Tetrachloroethane	ppbv	ND	U	ND	U	ND	U
1,1,2-Trichloroethane	ppbv	ND	U	ND	U	ND	U
1,1-Dichloroethane	ppbv	13,000	13,000	4,000	4,000	ND	ND
1,1-Dichloroethene	ppbv	1,500	1,500	1,700	1,600	ND	ND
1,2-Dichloroethane	ppbv	3,700	4,000	780	J/J	770	J/J
1,2-Dichloropropane	ppbv	1,200	J/J	1,200	J/J	1,000	J/J
2-Butanone (Methyl Ethyl Ketone)	ppbv	67,000	68,000	1,400	J/J	1,300	J/J
2-Hexanone	ppbv	ND	U	ND	U	ND	U
4-Methyl-2-pentanone	ppbv	32,000	31,000	6,200	6,200	ND	ND
Acetone	ppbv	82,000	84,000	1,600	J/J	1,600	J/J
Benzene	ppbv	83,000	84,000	37,000	37,000	ND	ND
Bromodichloromethane	ppbv	ND	U	ND	U	ND	U
Bromoform	ppbv	ND	U	ND	U	ND	U
Bromomethane	ppbv	ND	U	ND	U	ND	U
Carbon Disulfide	ppbv	ND	U	ND	U	ND	U
Carbon Tetrachloride	ppbv	ND	U	ND	U	ND	U
Chlorobenzene	ppbv	200	J/J	200	J/J	620	J/J
Chloroethane	ppbv	ND	U	ND	U	ND	U
Chloroform	ppbv	5,900	6,000	3,700	3,800	ND	ND
Chloromethane	ppbv	ND	U	ND	U	ND	U
cis-1,2-Dichloroethene	ppbv	25,000	25,000	49,000	50,000	ND	ND
cis-1,3-Dichloropropene	ppbv	ND	U	ND	U	ND	U
Dibromochloromethane	ppbv	ND	U	ND	U	ND	U
Ethyl Benzene	ppbv	56,000	58,000	81,000	83,000	ND	ND
m,p-Xylene	ppbv	240,000	240,000	290,000	300,000	ND	ND
Methylene Chloride	ppbv	89,000	90,000	13,000	13,000	ND	ND
o-Xylene	ppbv	79,000	83,000	82,000	87,000	ND	ND
Styrene	ppbv	ND	U	ND	U	ND	U
Tetrachloroethene	ppbv	88,000	90,000	160,000	150,000	ND	ND
Toluene	ppbv	480,000	480,000	580,000	E	590,000	E
trans-1,2-Dichloroethene	ppbv	ND	U	ND	U	ND	U
trans-1,3-Dichloropropene	ppbv	ND	U	ND	U	ND	U
Trichloroethene	ppbv	67,000	69,000	82,000	82,000	ND	ND
Vinyl Chloride	ppbv	850	J/J	810	J/J	3,600	3,700
Total	ppbv	1,514,350	1,528,710	1,452,600	1,470,700	ND	ND
Total	lb/hr	26.11	26.37	31.90	32.14	ND	ND

Notes:

/ - Laboratory data qualifier

/_ - Data validation qualifier

ND - Non-detect

ppbv - parts per billion volume

lb/hr - pounds per hour

Qualifiers:

J - Result is estimated

U - Below reported quantitation limit

E - Compound exceeds the upper level of calibra

Table 3.3
Summary of In-Situ Vapor Extraction (ISVE) System Influent Monitoring Data
for VOCs (Method TO-14) - Fourth Quarter 2003
ACS NPL Site
Griffith, Indiana

Compounds	Units	Sampled on 12/04/03			
		Off-Site ISVE System		On-Site ISVE System	
		Influent IN1	Influent IN1		
1,1,1-Trichloroethane	ppbv	78,000		17,000	
1,1,2,2-Tetrachloroethane	ppbv	ND	U	ND	U
1,1,2-Trichloroethane	ppbv	ND	U	ND	U
1,1-Dichloroethane	ppbv	9,500		2,100	
1,1-Dichloroethene	ppbv	2,100		790	
1,2-Dichloroethane	ppbv	2,700		280	J/J
1,2-Dichloropropane	ppbv	920	J/J	400	J/J
2-Butanone (Methyl Ethyl Ketone)	ppbv	38,000		1,200	J/J
2-Hexanone	ppbv	ND	U	ND	U
4-Methyl-2-pentanone	ppbv	20,000		1,600	J/J
Acetone	ppbv	60,000		830	J/J
Benzene	ppbv	57,000		7,800	
Bromodichloromethane	ppbv	ND	U	ND	U
Bromoform	ppbv	ND	U	ND	U
Bromomethane	ppbv	ND	U	ND	U
Carbon Disulfide	ppbv	990	J/J	ND	U
Carbon Tetrachloride	ppbv	ND	U	ND	U
Chlorobenzene	ppbv	ND	U	ND	U
Chloroethane	ppbv	ND	U/UJ	ND	U/UJ
Chloroform	ppbv	4,900		2,200	
Chloromethane	ppbv	ND	U	ND	U
cis-1,2-Dichloroethene	ppbv	17,000		22,000	
cis-1,3-Dichloropropene	ppbv	ND	U	ND	U
Dibromochloromethane	ppbv	ND	U	ND	U
Ethyl Benzene	ppbv	36,000		7,600	
m,p-Xylene	ppbv	160,000		27,000	
Methylene Chloride	ppbv	79,000		6,400	
o-Xylene	ppbv	52,000		9,100	
Styrene	ppbv	ND	U	ND	U
Tetrachloroethene	ppbv	60,000		17,000	
Toluene	ppbv	410,000		84,000	
trans-1,2-Dichloroethene	ppbv	ND	U	ND	U
trans-1,3-Dichloropropene	ppbv	ND	U	ND	U
Trichloroethene	ppbv	52,000		15,000	
Vinyl Chloride	ppbv	550	J/J	2,000	
Total	ppbv	1,140,660		224,300	
Total	lb/hr	18.56		4.43	

Notes:

J - Laboratory data qualifier

U - Data validation qualifier

ND - Non-detect

ppbv - parts per billion volume

lb/hr - pounds per hour

Qualifiers:

J - Result is estimated

U - Below reported quantitation limit

E - Compound exceeds the upper level of calibra

Table 3.4
Summary of In-Situ Vapor Extraction (ISVE) System Influent Monitoring Data
for SVOCs (Method TO-13) - Fourth Quarter 2003
ACS NPL Site
Griffith, Indiana

		Sampled on 10/02/03					
Compounds	Units	Off-Site ISVE System		On-Site ISVE System			
		Influent IN1	Influent IN2	Influent IN1	Influent IN2		
1,2,4-Trichlorobenzene	µg	0.62	J/J	1.0	ND	U	ND U
1,2-Dichlorobenzene	µg	81		140	15		27
1,3-Dichlorobenzene	µg	4.4		7.1	1.0		1.7
1,4-Dichlorobenzene	µg	12		21	2.8		5.2
2,4,5-Trichlorophenol	µg	ND	U	ND U	ND	U	ND U
2,4,6-Trichlorophenol	µg	ND	U	ND U	ND	U	ND U
2,4-Dichlorophenol	µg	ND	U	ND U	ND	U	ND U
2,4-Dimethylphenol	µg	ND	U	2.6	J	ND	U
2,4-Dinitrophenol	µg	ND	U	ND U	ND	U	ND U
2,4-Dinitrotoluene	µg	ND	U	ND U	ND	U	ND U
2,6-Dinitrotoluene	µg	ND	U	ND U	ND	U	ND U
2-Chloronaphthalene	µg	ND	U	ND U	ND	U	ND U
2-Chlorophenol	µg	ND	U	ND U	ND	U	ND U
2-Methylnaphthalene	µg	4.0		7.1	1.5		3.2
2-Methylphenol (o-Cresol)	µg	ND	U	ND U	ND	U	ND U
2-Nitroaniline	µg	ND	U	ND U	ND	U	ND U
2-Nitrophenol	µg	ND	U	ND U	ND	U	ND U
3,3'-Dichlorobenzidine	µg	ND	U	ND U	ND	U	ND U
3-Nitroaniline	µg	ND	U	ND U	ND	U	ND U
4,6-Dinitro-2-methylphenol	µg	ND	U	ND U	ND	U	ND U
4-Bromophenyl-phenyl Ether	µg	ND	U	ND U	ND	U	ND U
4-Chloro-3-methylphenol	µg	ND	U	ND U	ND	U	ND U
4-Chloroaniline	µg	ND	U	ND U	ND	U	ND U
4-Chlorophenyl-phenyl Ether	µg	ND	U	ND U	ND	U	ND U
4-Methylphenol	µg	ND	U	ND U	ND	U	ND U
4-Nitroaniline	µg	ND	U	ND U	ND	U	ND U
4-Nitrophenol	µg	ND	U	ND U	ND	U	ND U
Acenaphthene	µg	ND	U	ND U	ND	U	ND U
Acenaphthylene	µg	ND	U	ND U	ND	U	ND U
Anthracene	µg	ND	U	ND U	ND	U	ND U
Benz(a)anthracene	µg	ND	U	ND U	ND	U	ND U
Benz(a)pyrene	µg	ND	U	ND U	ND	U	ND U
Benz(b)fluoranthene	µg	ND	U	ND U	ND	U	ND U
Benz(g,h,i)perylene	µg	ND	U	ND U	ND	U	ND U
Benz(k)fluoranthene	µg	ND	U	ND U	ND	U	ND U
bis(2-Chloroethoxy) Methane	µg	ND	U	ND U	ND	U	ND U
bis(2-Chloroethyl) Ether	µg	ND	U	ND U	ND	U	ND U
bis(2-Ethylhexyl)phthalate	µg	ND	U	ND U	ND	U	ND U
Butylbenzylphthalate	µg	ND	U	ND U	ND	U	ND U
Chrysene	µg	ND	U	ND U	ND	U	ND U
Dibenz(a,h)anthracene	µg	ND	U	ND U	ND	U	ND U
Dibenzofuran	µg	ND	U	ND U	ND	U	ND U
Diethylphthalate	µg	ND	U	ND U	ND	U	ND U
Dimethylphthalate	µg	ND	U	ND U	ND	U	ND U
di-n-Butylphthalate	µg	ND	U	ND U	ND	U	ND U
Di-n-Octylphthalate	µg	ND	U	ND U	ND	U	ND U
Fluoranthene	µg	ND	U	ND U	ND	U	ND U
Fluorene	µg	ND	U	ND U	ND	U	ND U
Hexachlorobenzene	µg	ND	U	ND U	ND	U	ND U
Hexachlorobutadiene	µg	1.6		3.0	ND	U	ND U
Hexachlorocyclopentadiene	µg	ND	U	ND U	ND	U	ND U
Hexachloroethane	µg	ND	U	ND U	ND	U	ND U
Indeno(1,2,3-c,d)pyrene	µg	ND	U	ND U	ND	U	ND U
Isophorone	µg	ND	U	ND U	ND	U	ND U
Naphthalene	µg	25		43	5.7		13
Nitrobenzene	µg	ND	U	ND U	ND	U	ND U
N-Nitroso-di-n-propylamine	µg	ND	U	ND U	ND	U	ND U
N-Nitrosodiphenylamine	µg	ND	U	ND U	ND	U	ND U
Pentachlorophenol	µg	ND	U	ND U	ND	U	ND U
Phenanthrene	µg	ND	U	ND U	ND	U	ND U
Phenol	µg	ND	U	3.7	J	ND	U
Pyrene	µg	ND	U	ND U	ND	U	ND U
Total	µg	129		229	26.00		50.10

Table 3.4
Summary of In-Situ Vapor Extraction (ISVE) System Influent Monitoring Data
for SVOCs (Method TO-13) - Fourth Quarter 2003
ACS NPL Site
Griffith, Indiana

		Sampled on 11/06/03			
Compounds	Units	Off-Site ISVE System		On-Site ISVE System	
		Influent IN1	Influent IN2	Influent IN1	Influent IN2
1,2,4-Trichlorobenzene	µg	1.4	1.6	ND	U
1,2-Dichlorobenzene	µg	110	120	25	32
1,3-Dichlorobenzene	µg	4.6	5.6	1.7	2.1
1,4-Dichlorobenzene	µg	15	17	4.7	6.1
2,4,5-Trichlorophenol	µg	ND	U	ND	U
2,4,6-Trichlorophenol	µg	ND	U	ND	U
2,4-Dichlorophenol	µg	ND	U	ND	U
2,4-Dimethylphenol	µg	ND	U	ND	U
2,4-Dinitrophenol	µg	ND	U	ND	U
2,4-Dinitrotoluene	µg	ND	U	ND	U
2,6-Dinitrotoluene	µg	ND	U	ND	U
2-Chloronaphthalene	µg	ND	U	ND	U
2-Chlorophenol	µg	ND	U	ND	U
2-Methylnaphthalene	µg	7.9	9.4	1.7	2.4
2-Methylphenol (o-Cresol)	µg	ND	U	ND	U
2-Nitroaniline	µg	ND	U	ND	U
2-Nitrophenol	µg	ND	U	ND	U
3,3'-Dichlorobenzidine	µg	ND	U	ND	U
3-Nitroaniline	µg	ND	U	ND	U
4,6-Dinitro-2-methylphenol	µg	ND	U	ND	U
4-Bromophenyl-phenyl Ether	µg	ND	U	ND	U
4-Chloro-3-methylphenol	µg	ND	U	ND	U
4-Chloroaniline	µg	ND	U	ND	U
4-Chlorophenyl-phenyl Ether	µg	ND	U	ND	U
4-Methylphenol	µg	3.6	J/J	4.9	J/J
4-Nitroaniline	µg	ND	U	ND	U
4-Nitrophenol	µg	ND	U	ND	U
Acenaphthene	µg	ND	U	ND	U
Acenaphthylene	µg	ND	U	ND	U
Anthracene	µg	ND	U	ND	U
Benzo(a)anthracene	µg	ND	U	ND	U
Benzo(a)pyrene	µg	ND	U	ND	U
Benzo(b)fluoranthene	µg	ND	U	ND	U
Benzo(g,h,i)perylene	µg	ND	U	ND	U
Benzo(k)fluoranthene	µg	ND	U	ND	U
bis(2-Chloroethoxy) Methane	µg	ND	U	ND	U
bis(2-Chloroethyl) Ether	µg	ND	U	ND	U
bis(2-Ethylhexyl)phthalate	µg	0.9	J/J	0.73	J/J
Butylbenzylphthalate	µg	1.5	J/JB	ND	U
Chrysene	µg	ND	U	3	J/JB
Dibenz(a,h)anthracene	µg	ND	U	ND	U
Dibenzofuran	µg	ND	U	ND	U
Diethylphthalate	µg	ND	U	ND	U
Dimethylphthalate	µg	ND	U	ND	U
di-n-Butylphthalate	µg	ND	U	ND	U
Di-n-Octylphthalate	µg	ND	U	ND	U
Fluoranthene	µg	ND	U	ND	U
Fluorene	µg	ND	U	ND	U
Hexachlorobenzene	µg	ND	U	ND	U
Hexachlorobutadiene	µg	3		3.4	
Hexachlorocyclopentadiene	µg	ND	U	ND	U
Hexachloroethane	µg	ND	U	ND	U
Indeno(1,2,3-c,d)pyrene	µg	ND	U	ND	U
Isophorone	µg	18		22	
Naphthalene	µg	56		67	
Nitrobenzene	µg	ND	U	ND	U
N-Nitroso-di-n-propylamine	µg	ND	U	ND	U
N-Nitrosodiphenylamine	µg	ND	U	ND	U
Pentachlorophenol	µg	ND	U	ND	U
Phenanthrene	µg	ND	U	ND	U
Phenol	µg	ND	U	ND	U
Pyrene	µg	ND	U	ND	U
Total	µg	221.90		251.63	
				49.14	62.43

Table 3.4
Summary of In-Situ Vapor Extraction (ISVE) System Influent Monitoring Data
for SVOCs (Method TO-13) - Fourth Quarter 2003
ACS NPL Site
Griffith, Indiana

Compounds	Units	Sampled 12/04/03		
		Off-Site ISVE System	On-Site ISVE System	Influent IN1
1,2,4-Trichlorobenzene	µg	0.71	J/J	ND U
1,2-Dichlorobenzene	µg	54.00	J/J	5.00
1,3-Dichlorobenzene	µg	2.90	J/J	ND U
1,4-Dichlorobenzene	µg	8.70	J/J	1.10
2,4,5-Trichlorophenol	µg	ND	U/R	ND U
2,4,6-Trichlorophenol	µg	ND	U/R	ND U
2,4-Dichlorophenol	µg	ND	U/R	ND U
2,4-Dimethylphenol	µg	ND	U/R	ND U
2,4-Dinitrophenol	µg	ND	U/R	ND U
2,4-Dinitrotoluene	µg	ND	U/R	ND U
2,6-Dinitrotoluene	µg	ND	U/R	ND U
2-Chloronaphthalene	µg	ND	U/R	ND U
2-Chlorophenol	µg	ND	U/R	ND U
2-Methylnaphthalene	µg	4.60	J/J	ND U
2-Methylphenol (o-Cresol)	µg	ND	U/R	ND U
2-Nitroaniline	µg	ND	U/R	ND U
2-Nitrophenol	µg	ND	U/R	ND U
3,3'-Dichlorobenzidine	µg	ND	U/R	ND U
3-Nitroaniline	µg	ND	U/R	ND U
4,6-Dinitro-2-methylphenol	µg	ND	U/R	ND U
4-Bromophenyl-phenyl Ether	µg	ND	U/R	ND U
4-Chloro-3-methylphenol	µg	ND	U/R	ND U
4-Chloroaniline	µg	ND	U/R	ND U
4-Chlorophenyl-phenyl Ether	µg	ND	U/R	ND U
4-Methylphenol	µg	ND	U/R	ND U
4-Nitroaniline	µg	ND	U/R	ND U
4-Nitrophenol	µg	ND	U/R	ND U
Acenaphthene	µg	ND	U/R	ND U
Acenaphthylene	µg	ND	U/R	ND U
Anthracene	µg	ND	U/R	ND U
Benzo(a)anthracene	µg	ND	U/R	ND U
Benzo(a)pyrene	µg	ND	U/R	ND U
Benzo(b)fluoranthene	µg	ND	U/R	ND U
Benzo(g,h,i)perylene	µg	ND	U/R	ND U
Benzo(k)fluoranthene	µg	ND	U/R	ND U
bis(2-Chloroethoxy) Methane	µg	ND	U/R	ND U
bis(2-Chloroethyl) Ether	µg	3.40	J/J	ND U
bis(2-Ethylhexyl)phthalate	µg	0.68	J/J	1.00 J/J
Butylbenzylphthalate	µg	3.60	J/J	ND U
Chrysene	µg	ND	U/R	ND U
Dibenz(a,h)anthracene	µg	ND	U/R	ND U
Dibenzofuran	µg	ND	U/R	ND U
Diethylphthalate	µg	ND	U/R	ND U
Dimethylphthalate	µg	ND	U/R	ND U
di-n-Butylphthalate	µg	ND	U/R	0.55 J/J
Di-n-Octylphthalate	µg	ND	U/R	ND U
Fluoranthene	µg	ND	U/R	ND U
Fluorene	µg	ND	U/R	ND U
Hexachlorobenzene	µg	ND	U/R	ND U
Hexachlorobutadiene	µg	1.70	J/J	ND U
Hexachlorocyclopentadiene	µg	ND	U/R	ND U
Hexachloroethane	µg	ND	U/R	ND U
Indeno(1,2,3-c,d)pyrene	µg	ND	U/R	ND U
Isophorone	µg	6.80	J/J	0.77 J/J
Naphthalene	µg	26.00	J/J	1.40
Nitrobenzene	µg	ND	U/R	ND U
N-Nitroso-di-n-propylamine	µg	ND	U/R	ND U
N-Nitrosodiphenylamine	µg	ND	U/R	ND U
Pentachlorophenol	µg	ND	U/R	ND U
Phenanthrene	µg	ND	U/R	ND U
Phenol	µg	ND	U/R	ND U
Pyrene	µg	ND	U/R	ND U
Total	µg	113		9.82

Notes:

/ - Laboratory data qualifier

/_ - Data validation qualifier

µg - Microgram

NC - Not calculated

ND - Non-detect

The low and high influent concentrations used to calculate the destruction efficiencies are the sum of the low and high concentrations of the two ISVE systems

Qualifiers:

J - Result is estimated

JB - Analyte detected in the method blank resulting in potential bias high. Reported concentration is estimated.

U - below reported quantitation limit

R - The data are rejected.

Table 3.5
Off-Site In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data - Fourth Quarter 2003
ACS NPL Site
Griffith, Indiana

Well ID	Date	Flow (cfm)	Vacuum ($\text{" H}_2\text{O}$)	VOCs (ppm)	Comments
SVE-03	10/10/2003	813	40	23	
	10/23/2003	750	34	170	
	10/28/2003	0	37	468	
	11/6/2003	0	40	80	
	11/12/2003	28	40	170	
	11/18/2003	0	48	370	
	11/25/2003	0	43	240	
	12/23/2003	88	38	270	
SVE-04	10/10/2003	724	50	53	
	10/23/2003	675	44	315	
	10/28/2003	61	48	562	
	11/6/2003	109	50	312	
	11/12/2003	95	49	365	
	11/18/2003	94	56	855	
	11/25/2003	61	47	530	
	12/23/2003	0	40	670	
SVE-05	10/10/2003	853	12.73	1	
	10/23/2003	773	32	275	
	10/28/2003	0	36	673	
	11/6/2003	100	40	341	
	11/12/2003	28	39	168	
	11/18/2003	0	46	860	
	11/25/2003	28	42	495	
	12/23/2003	56	38	670	
SVE-11	10/10/2003	-	38	35	
	10/23/2003	-	32	230	
	10/28/2003	-	35	476	
	11/6/2003	-	38	139	
	11/12/2003	-	37	190	
	11/18/2003	-	42	410	
	11/25/2003	-	40	245	
	12/23/2003	-	36	220	
SVE-13	10/10/2003	798	36	51	
	10/23/2003	723	29	16	
	10/28/2003	0	30	1324	
	11/6/2003	0	37	380	
	11/12/2003	0	34	992	
	11/18/2003	0	42	1175	
	11/25/2003	39	38	795	
	12/23/2003	0	32	470	
SVE-16	10/10/2003	788	36	51	
	10/23/2003	713	28	568	
	10/28/2003	0	32	1390	
	11/6/2003	104	37	860	
	11/12/2003	84	35	840	
	11/18/2003	62	40	1600	
	11/25/2003	56	38	785	
	12/23/2003	105	32	850	
SVE-20	10/10/2003	756	48	15	
	10/23/2003	701	40	135	
	10/28/2003	39	44	400	
	11/6/2003	39	47	36	
	11/12/2003	0	45	170	
	11/18/2003	0	54	120	
	11/25/2003	0	50	152	
	12/23/2003	0	44	110	

Table 3.5
Off-Site In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data - Fourth Quarter 2003
ACS NPL Site
Griffith, Indiana

Well ID	Date	Flow (cfm)	Vacuum (" H ₂ O)	VOCs (ppm)	Comments
SVE-23	10/10/2003	748	36	46	
	10/23/2003	677	30	608	
	10/28/2003	105	34	1740	
	11/6/2003	108	36	1480	
	11/12/2003	112	35	1030	
	11/18/2003	96	41	1715	
	11/25/2003	144	39	2310	
	12/23/2003	125	32	1315	
SVE-25	10/10/2003	778	46	16	
	10/28/2003	96	40	1880	
	11/6/2003	110	44	1150	
	11/12/2003	110	44	1310	
	11/18/2003	131	52	1595	
	11/25/2003	107	44	1605	
	12/23/2003	107	40	985	
SVE-26	10/10/2003	775	39	11	
	10/23/2003	711	30	135	
	10/28/2003	0	34	530	
	11/6/2003	0	38	84	
	11/12/2003	0	37	160	
	11/18/2003	0	44	290	
	11/25/2003	62	39	340	
	12/23/2003	0	34	115	
SVE-29	10/10/2003	810	34	49	
	10/23/2003	737	26	562	
	10/28/2003	0	30	1310	
	11/6/2003	0	35	1042	
	11/12/2003	0	33	885	
	11/18/2003	55	42	1485	
	11/25/2003	28	37	1535	
	12/23/2003	63	30	1130	
SVE-38	10/10/2003	804	40	15	
	10/23/2003	737	37	760	
	10/28/2003	0	38	2681	
	11/6/2003	39	42	1380	
	11/12/2003	68	40	1325	
	11/18/2003	0	48	1060	
	11/25/2003	48	44	1505	
	12/23/2003	0	44	1255	
SVE-39	10/10/2003	764	40	16	
	10/23/2003	665	30	620	
	10/28/2003	79	34	1295	
	11/6/2003	96	37	560	
	11/12/2003	101	36	670	
	11/19/2003	114	43	1100	
	11/25/2003	111	40	1000	
	12/23/2003	105	32	790	

Notes:

"—" = data not collected

cfm = cubic feet per minute

"H₂O = inches of water

ppm = parts per million

VOCs = volatile organic compounds

Table 3.6
Off-Site In-Situ Vapor Extraction (ISVE) System Header Monitoring Data - Fourth Quarter 2003
ACS NPL Site
Griffith, Indiana

Date	KP1 Line Press (psia)	KP1 Flow (scfm)	KP1 Vacuum (" H ₂ O)	KP2 Line Pressure (psia)	KP2 Flow (scfm)	KP2 Vacuum (" H ₂ O)	OFCA1 Vacuum (" H ₂ O)	OFCA2 Vacuum (" H ₂ O)	OFCA3 Vacuum (" H ₂ O)
10/10/2003	13.3	-	41	13.4	438	38	38	30	36
10/23/2003	13.4	-	35	13.5	-	32	32	24	32
10/28/2003	13.1	-	39	13.2	405	36	36	28	35
11/6/2003	13.4	-	42	13.5	-	39	39	30	38
11/12/2003	13.1	-	41	13.2	234	39	40	30	37
11/18/2003	13.0	-	48	13.1	0	45	44	36	44
11/25/2003	13.2	-	43	13.3	0	40	40	32	40
12/23/2003	13.1	-	42	13.6	0	30	35	28	36

Notes:

"-" = data not collected

cfm = cubic feet per minute

"H₂O = inches of water

ppm = parts per million

psia = pounds per square inch (atmosphere)

VOC's = volatile organic compounds

Table 3.6
Off-Site In-Situ Vapor Extraction (ISVE) System Header Monitoring Data - Fourth Quarter 2003
ACS NPL Site
Griffith, Indiana

Date	Dilution Flow (cfm)	Blower Influent Line Pressure (psia)	Blower Influent Flow (scfm)	Blower Influent Vacuum (" H ₂ O)	Blower Influent VOC (ppm)	Blower Influent Temperature (°F)	Blower Effluent Line Pressure (psia)	Blower Effluent Flow (scfm)
10/10/2003	0	13.0	611	48	-	70	15.6	1020
10/23/2003	0	13.3	438	40	-	64	15.7	1014
10/28/2003	0	12.9	714	43	-	62	15.4	994
11/6/2003	0	13.2	841	48	-	64	15.9	1038
11/12/2003	0	12.9	733	46	-	62	15.4	993
11/18/2003	0	12.8	611	52	-	62	15.6	962
11/25/2003	0	13.0	961	47	-	60	15.7	984
12/23/2003	0	13.1	1039	44	-	52	15.6	1002

Notes:

"-" = data not collected
 cfm = cubic feet per minute
 "H₂O = inches of water
 ppm = parts per million
 psia = pounds per square inch (atmosphere)
 VOCs = volatile organic compounds

Table 3.6

Off-Site In-Situ Vapor Extraction (ISVE) System Header Monitoring Data - Fourth Quarter 2003

ACS NPL Site

Griffith, Indiana

Date	Blower Effluent Pressure (" H ₂ O)	Blower Effluent VOC (ppm)	Blower Effluent Temperature (°F)	Filter Differential Pressure (" H ₂ O)	Ambient Temperature (°F)	Barometric Pressure ("Hg)	Humidity (%)
10/10/2003	23.0	-	92	6.0	73	30.06	65%
10/23/2003	27.0	-	118	6.0	48	29.92	66%
10/28/2003	26.0	-	116	6.0	50	29.50	94%
11/6/2003	26.5	-	50	6.0	45	30.32	71%
11/12/2003	23.5	-	117	6.5	55	29.71	94%
11/18/2003	24.0	-	124	6.0	64	29.95	88%
11/25/2003	26.0	-	119	6.0	36	29.98	60%
12/23/2003	26.0	-	112	6.5	37	29.84	75%

Notes:

"- " = data not collected

cfm = cubic feet per minute

"H₂O = inches of water

ppm = parts per million

psia = pounds per square inch (atmosphere)

VOCs = volatile organic compounds

Table 3.7
SBPA In-Situ Soil Vapor Extraction (ISVE) System
Well Monitoring Data - Fourth Quarter 2003
American Chemical Services NPL Site
Griffith, Indiana

Well ID	Date	Flow (cfm)	Vacuum ($\text{" H}_2\text{O}$)	VOCs (ppm)	Comments
SVE-43	10/10/2003	0	11	50	
	10/23/2003	0	34	445	
	10/28/2003	0	46	610	
	11/6/2003	17	45	134	
	11/25/2003	0	63	200	
	12/23/2003	16	100	265	Vacuum reading actually >100"
SVE-44	10/10/2003	0	11	305	
	10/23/2003	0	33	215	
	10/28/2003	0	46	365	
	11/6/2003	12	45	278	
SVE-45	10/10/2003	0	12	13	
	10/23/2003	0	34	572	
	10/28/2003	0	46	737	
	11/6/2003	17	47	178	
SVE-46	10/10/2003	0	12	4	
	10/23/2003	0	34	601	
	10/28/2003	0	46	765	
	11/6/2003	0	46	128	
	11/25/2003	13	0	270	
	12/23/2003	44	100	-	Vacuum reading actually >100". No VOC reading because of excess liquid in line.
SVE-47	10/10/2003	0	17	18	
	10/23/2003	18	32	578	
	10/28/2003	0	44	760	
	11/6/2003	0	44	1360	
	11/25/2003	0	0	800	
	12/23/2003	11	100	775	Vacuum reading actually >100"
SVE-48	10/10/2003	0	18	38	
	10/23/2003	0	33	495	
	10/28/2003	0	26	790	
	11/6/2003	0	45	1690	
SVE-49	10/10/2003	0	18	77	
	10/23/2003	0	32	495	
	10/28/2003	0	42	720	
	11/6/2003	12	44	420	
	11/25/2003	0	0	245	
	12/23/2003	0	100	307	Vacuum reading actually >100"
SVE-50	10/10/2003	0	18	178	
	10/23/2003	0	34	490	
	10/28/2003	0	47	420	
	11/6/2003	12	47	363	
	11/25/2003	0	0	210	
	12/23/2003	0	100	320	Vacuum reading actually >100"
SVE-51	10/10/2003	0	19	43	
	10/23/2003	0	34	290	
	10/28/2003	0	0	365	
	11/6/2003	12	49	248	
SVE-52	10/10/2003	0	19	21	
	10/23/2003	0	34	544	
	10/28/2003	0	47	742	
	11/6/2003	0	47	1270	

Table 3.7
SBPA In-Situ Soil Vapor Extraction (ISVE) System
Well Monitoring Data - Fourth Quarter 2003
American Chemical Services NPL Site
Griffith, Indiana

Well ID	Date	Flow (cfm)	Vacuum ($\text{" H}_2\text{O}$)	VOCs (ppm)	Comments
SVE-53	10/10/2003	0	21	8	
	10/23/2003	0	33	590	
	10/28/2003	0	46	857	
	11/6/2003	0	47	93	
	11/25/2003	0	0	215	
	12/23/2003	0	100	347	Vacuum reading actually >100"
SVE-54	10/10/2003	0	19	19	
	10/23/2003	0	10	608	
	10/28/2003	0	0	822	
	11/6/2003	0	48	545	
SVE-55	10/10/2003	18	22	28	
	10/23/2003	12	35	612	
	10/28/2003	12	46	823	
	11/6/2003	12	46	980	
	11/25/2003	0	100	--	Excessive liquid in line, could not measure VOCs. Vacuum gauge read >100" H ₂ O.
	12/23/2003	41	100	701	Vacuum reading actually >100"
SVE-56	10/10/2003	36	22	51	
	10/23/2003	39	37	570	
	10/28/2003	37	52	861	
	11/6/2003	35	49	1485	
SVE-57	10/10/2003	22	20	20	
	10/23/2003	35	37	556	
	10/28/2003	24	53	882	Opaque white liquid
	11/6/2003	0	49	755	
SVE-58	10/10/2003	32	10	7	
	10/23/2003	35	34	59	
	10/28/2003	39	49	735	
	11/6/2003	43	46	158	
	11/25/2003	0	79	505	
	12/23/2003	0	69	447	
SVE-59	10/10/2003	0	18	5	
	10/23/2003	0	32	515	
	10/28/2003	0	55	660	
	11/6/2003	0	46	850	
SVE-60	10/10/2003	0	18	33	
	10/23/2003	0	32	259	
	10/28/2003	0	48	628	Liquid in pipe
	11/6/2003	0	46	190	
	11/25/2003	12	77	460	
	12/23/2003	0	68	845	
SVE-61	10/10/2003	0	17	68	
	10/23/2003	0	31	505	
	10/28/2003	0	47	840	
	11/6/2003	0	45	1210	
SVE-62	10/10/2003	0	20	112	
	10/23/2003	0	31	500	
	10/28/2003	0	46	891	
	11/6/2003	0	46	540	

Table 3.7
SBPA In-Situ Soil Vapor Extraction (ISVE) System
Well Monitoring Data - Fourth Quarter 2003
American Chemical Services NPL Site
Griffith, Indiana

Well ID	Date	Flow (cfm)	Vacuum (in H ₂ O)	VOCs (ppm)	Comments
SVE-63	10/10/2003	0	17	48	
	10/23/2003	0	35	488	
	10/28/2003	0	50	750	
	11/6/2003	0	47	1070	
SVE-64	10/10/2003	0	16	58	
	10/23/2003	0	33	376	
	10/28/2003	0	48	630	
	11/6/2003	0	46	1310	
SVE-65	10/10/2003	0	21	59	
	10/23/2003	0	32	548	
	10/28/2003	0	48	777	
	11/6/2003	0	45	280	
SVE-66	10/10/2003	0	20	101	
	10/23/2003	0	36	650	
	10/28/2003	0	50	800	
	11/6/2003	0	50	1730	
SVE-67	10/10/2003	13	22	131	
	10/23/2003	0	35	550	
	10/28/2003	0	50	815	
	11/6/2003	0	48	1820	
SVE-68	10/10/2003	35	18	65	
	10/23/2003	18	32	561	
	10/28/2003	0	50	810	Opaque white liquid
	11/6/2003	47	49	2050	
SVE-69	10/10/2003	33	19	51	
	10/23/2003	33	33	557	Liquid in pipe
	10/28/2003	46	46	897	Opaque white liquid
	11/6/2003	33	46	1488	
SVE-70	10/10/2003	145	20	7	
	10/23/2003	210	32	91	
	10/28/2003	0	49	630	
	11/6/2003	0	47	1220	
	11/25/2003	12	80	770	
	12/23/2003	0	68	892	
SVE-71	10/10/2003	0	22	50	
	10/23/2003	0	36	375	
	10/28/2003	0	50	600	
	11/6/2003	0	48	850	
	11/25/2003	0	56	520	
	12/23/2003	0	70	620	
SVE-72	10/10/2003	0	18	19	
	10/23/2003	0	36	138	
	10/28/2003	0	52	653	
	11/6/2003	0	48	200	
	11/25/2003	12	80	830	
	12/23/2003	0	71	975	
SVE-73	10/10/2003	109	18	43	
	10/23/2003	0	34	530	
	10/28/2003	0	51	702	
	11/6/2003	228	43	20	
	11/25/2003	0	76	1325	
	12/23/2003	0	69	1280	

Table 3.7
SBPA In-Situ Soil Vapor Extraction (ISVE) System
Well Monitoring Data - Fourth Quarter 2003
American Chemical Services NPL Site
Griffith, Indiana

Well ID	Date	Flow (cfm)	Vacuum (in H ₂ O)	VOCs (ppm)	Comments
SVE-74	10/10/2003	18	18	71	
	10/23/2003	0	34	494	
	10/28/2003	0	51	682	
	11/6/2003	0	47	1630	
	11/25/2003	0	76	1140	
	12/23/2003	0	69	960	
SVE-75	10/10/2003	34	23	130	
	10/23/2003	43	32	622	
	10/28/2003	17	46	910	Brown liquid
	11/6/2003	0	44	—	
SVE-76	10/10/2003	28	18	92	
	10/23/2003	0	32	600	Liquid in pipe
	10/28/2003	76	47	877	Opaque white liquid
	11/6/2003	0	45	--	
SVE-77	10/10/2003	28	20	102	
	10/23/2003	35	33	634	
	10/28/2003	35	48	895	
	11/6/2003	0	46	1772	
SVE-78	10/10/2003	0	20	69	Clear liquid bubbling in riser
	10/23/2003	0	35	630	Liquid in pipe
	10/28/2003	44	48	690	Opaque white liquid
	11/6/2003	0	45	—	
SVE-79	10/10/2003	0	21	12	
	10/23/2003	0	35	105	
	10/28/2003	0	50	705	
	11/6/2003	0	44	260	
	11/25/2003	0	0	530	
	12/23/2003	0	42	377	
SVE-80	10/10/2003	0	20	14	
	10/23/2003	0	36	126	
	10/28/2003	0	52	707	
	11/6/2003	0	49	250	
	11/25/2003	0	82	500	
	12/23/2003	0	71	601	
SVE-81	10/10/2003	0	20	74	
	10/23/2003	0	35	500	
	10/28/2003	0	49	630	
	11/6/2003	0	48	1062	
	11/25/2003	0	79	860	
	12/23/2003	0	67	753	
SVE-82	10/10/2003	0	18	13	
	10/23/2003	0	35	33	
	10/28/2003	0	50	660	
	11/6/2003	0	48	430	
	11/25/2003	0	80	775	
	12/23/2003	0	70	709	
SVE-83	10/10/2003	0	19	105	
	10/23/2003	0	32	522	
	12/23/2003	0	68	975	

Table 3.7
SBPA In-Situ Soil Vapor Extraction (ISVE) System
Well Monitoring Data - Fourth Quarter 2003
American Chemical Services NPL Site
Griffith, Indiana

Well ID	Date	Flow (cfm)	Vacuum ($\text{"H}_2\text{O}$)	VOCs (ppm)	Comments
SVE-84	10/10/2003	0	18	26	
	10/23/2003	0	35	305	
	10/28/2003	0	52	645	
	11/6/2003	0	47	720	
	11/25/2003	0	70	620	
SVE-85	10/10/2003	0	20	112	
	10/23/2003	0	34	598	
	10/28/2003	0	52	775	
	11/6/2003	0	47	2210	
	11/25/2003	0	70	1110	
SVE-86	10/10/2003	0	15	54	
	10/23/2003	0	35	394	
	10/28/2003	0	49	620	
	11/6/2003	0	47	340	
	11/25/2003	0	68	900	
SVE-87	10/10/2003	24	19	115	
	10/23/2003	13	41	714	
	10/28/2003	0	56	660	
	11/6/2003	38	54	1460	
SVE-88	10/10/2003	0	17	37	
	10/23/2003	0	34	260	
	10/28/2003	0	51	715	
	11/6/2003	0	44	1560	
	11/25/2003	0	75	1920	
	12/23/2003	0	65	1230	

Notes:

"-" = data not collected

cfm = cubic feet per minute

"H₂O = inches of water

ppm = parts per million

VOCs = volatile organic compounds

Table 3.8
SBPA In-Situ Soil Vapor Extraction (ISVE) System Header
Monitoring Data - Fourth Quarter 2003
American Chemical Services NPL Site
Griffith, Indiana

Date	Line Pressure (psia)	Flow (scfm)	Vacuum (" H ₂ O)	Line Pressure (psia)	Flow (scfm)	Vacuum (" H ₂ O)	Dilution Flow (cfm)	Blower Influent Line Pressure (psia)	Blower Influent Flow (scfm)
10/10/2003	14.1	343	19	14.1	343	19	0	13.3	373
10/23/2003	13.5	291	33	13.5	237	34	0	12.8	543
10/28/2003	12.9	437	44	12.8	0	46	0	12.2	424
11/6/2003	13.2	335	46	13.2	334	48	0	12.6	—
11/25/2003	12.0	51	76	14.7	0	0	0	14.7	57
12/23/2003	12.2	0	67	12.3	164	66	0	11.0	155

Notes:

"—" = data not collected

cfm = cubic feet per minute

"H₂O = inches of water

ppm = parts per million

psia = pounds per square inch (atmosphere)

VOCs = volatile organic compounds

Table 3.8
SBPA In-Situ Soil Vapor Extraction (ISVE) System Header
Monitoring Data - Fourth Quarter 2003
American Chemical Services NPL Site
Griffith, Indiana

Date	Blower Influent Vacuum (" H ₂ O)	Blower Influent VOC (ppm)	Blower Effluent Line Pressure (psia)	Blower Effluent Flow (scfm)	Blower Effluent Pressure (" H ₂ O)	Blower Effluent VOC (ppm)
10/10/2003	40	--	15.3	1331	15.0	-
10/23/2003	52	--	15.2	1264	13.5	-
10/28/2003	64	--	15.0	1185	13.0	-
11/6/2003	64	--	15.3	1233	11.5	-
11/25/2003	0	--	15.1	1134	10.0	-
12/23/2003	100	--	15.0	1158	8.5	-

Notes:

"-" = data not collected

cfm = cubic feet per minute

"H₂O = inches of water

ppm = parts per million

psia = pounds per square inch (atmosphere)

VOCs = volatile organic compounds

Table 3.8
SBPA In-Situ Soil Vapor Extraction (ISVE) System Header
Monitoring Data - Fourth Quarter 2003
American Chemical Services NPL Site
Griffith, Indiana

Date	Blower Effluent Temperature (°F)	Filter Differential Pressure (" H ₂ O)	Ambient Temperature (°F)	Barometric Pressure ("Hg)	Humidity (%)
10/10/2003	102	7.0	73	30.06	65%
10/23/2003	107	6.0	48	29.92	66%
10/28/2003	106	5.0	50	29.50	94%
11/6/2003	108	8.0	45	30.32	71%
11/25/2003	112	8.0	36	29.98	60%
12/23/2003	109	8.0	37	29.84	75%

Notes:

"." = data not collected

cfm = cubic feet per minute

"H₂O = inches of water

ppm = parts per million

psia = pounds per square inch (atmosphere)

VOCs = volatile organic compounds

Table 6.1
Water Table Elevations Across the Barrier Wall and Near the PGCS - Fourth Quarter 2003
American Chemical Service NPL Site
Griffith, Indiana

Upper Aquifer Wells

Well Designation	Reference Points			12/9/2003		Notes	Difference Across Barrier Wall (if applicable) ¹
	East	North	TOIC	level	Elevation		
MW11	6377	7329	640.47	7.00	633.47		n/a
MW13	5050	7814	634.08	3.26	630.82		n/a
MW37	5395	7976	636.78	4.85	631.93		n/a
MW46	4526	7424	633.32	3.70	629.62		n/a
MW48	5669	7814	636.36	4.43	631.93		n/a
MW49	5551	7650	637.00	5.03	631.97		n/a

Staff Gauges & Piezometers

Well Designation	Reference Points			12/9/2003		Notes	Difference Across Barrier Wall (if applicable) ¹
	East	North	TOSG	level	Elevation		
P23	4689	7018	636.18	5.52	630.66		n/a
P25	5131	7510	635.01	4.55	630.46		n/a
P26	4764	7309	634.23	3.58	630.65		n/a
P27	4904	7020	639.70	9.00	630.70		n/a
P28	5883	7486	644.53	11.78	632.75		n/a
P32	5746	7026	642.32	10.40	631.92		n/a
P40	5931	7241	638.77	5.48	633.29		n/a
P41	5663	7377	637.23	4.09	633.14		n/a
P49	5145	6949	638.98	8.30	630.68		n/a
SG13	4819	7209	631.53	5.02	630.55	TOSG = 6.0' mark	n/a

PGCS Piezometer Sets

Well Designation	Reference Points			12/9/2003		Notes	Difference Across Barrier Wall (if applicable) ¹
	East	North	TOC	level	Elevation		
P81	5577	7581	636.19	4.40	631.79		n/a
P82	5577	7572	635.77	4.00	631.77		n/a
P83	5577	7561.6	635.95	4.19	631.76		n/a
P84	5322	7603	634.35	3.75	630.60		n/a
P85	5326	7594	634.08	3.47	630.61		n/a
P86	5329	7585	634.41	3.68	630.73		n/a
P87	5121	7466	633.88	3.45	630.43		n/a
P88	5130	7460	633.90	4.10	629.80		n/a
P89	5137	7454	634.02	3.86	630.16		n/a
P90	4881	7152	634.45	3.93	630.52		n/a
P91	4889	7145	634.59	4.14	630.45		n/a
P92	4896	7138.1	633.87	3.30	630.57		n/a

Table 6.1
Water Table Elevations Across the Barrier Wall and Near the PGCS - Fourth Quarter 2003
American Chemical Service NPL Site
Griffith, Indiana

BWES Water Level and Piezometer Pairs

Well Designation	Reference Points			12/9/2003		Notes	Difference Across Barrier Wall (if applicable) ¹
	East	North	TOC	level	Elevation		
P93 - Outside BW	5136	7067	638.79	CNM	CNM	Does not exist - to be replaced	n/a
P94 - Inside BW	5146	7061	638.98	CNM	CNM	Does not exist - to be replaced	
P95 - Outside BW	5146	6532	638.58	5.65	632.93		-5.97
P96 - Inside BW	5156	6537	641.26	14.30	626.96		
P105 - Outside BW	5885	6678	638.86	5.32	633.54		-3.24
P106 - Inside BW	5871	6685	638.10	7.80	630.30		
P107 - Outside BW	5766	7339	637.42	4.72	632.70		-1.00
P108 - Inside BW	5757	7324	638.13	6.43	631.70		
P109 - Outside BW	5740	6387	644.30	11.06	633.24		-5.46
P110 - Inside BW	5705	6382	647.68	19.90	627.78		
P111 - Outside BW	5551	5950	650.03	17.46	632.57		-5.81
P112 - Inside BW	5525	5960	653.36	26.60	626.76		
P113 - Inside BW ²	5309	5693	657.53	30.63	626.90		-5.27
ORCPZ102 - Outside BW	5331	5612	652.47	20.30	632.17		
P114 - Inside BW	5035	5729	653.69	26.38	627.31		-4.94
P115 - Outside BW	4970	5708	652.50	20.25	632.25		
P116 - Inside BW	5031	6087	646.26	18.90	627.36		-6.13
P117 - Outside BW	5014	6087	643.93	10.44	633.49		
P118 - Inside BW	5402	6539	645.52	18.55	626.97		n/a

Notes:

All depth measurements and elevations are in units of feet.

Elevation is in feet above mean sea level.

TOC = top of casing

TOSG = top of staff gauge

CNM = could not measure (reason given under "Notes" column)

n/a = not applicable

¹ = A positive value indicates that the water level is higher

inside the barrier wall. A negative value indicates that
the water level is lower inside the barrier wall.

Table 6.2
Water Levels Inside Barrier Wall - Fourth Quarter 2003
American Chemical Service NPL Site
Griffith, Indiana

Date	On-Site Area					
	Target Level	P-29	P-31	P-32	P-36	P-49
3-Oct-03	629	631.4	631.6	631.6	628.9	630.4
10-Oct-03	629.0	631.4	631.6	631.6	628.9	630.4
17-Oct-03	629.0	631.4	631.6	631.6	628.9	630.4
24-Oct-03	629.0	631.4	631.7	631.6	628.5	630.4
31-Oct-03	629.0	631.3	631.7	631.6	628.1	630.3
7-Nov-03	629.0	631.3	630.9	631.5	627.1	630.2
14-Nov-03	629.0	631.2	631.0	631.8	626.8	630.5
21-Nov-03	629.0	631.0	631.0	632.0	626.5	630.7
28-Nov-03	629.0	630.8	631.3	632.0	627.1	630.7
5-Dec-03	629.0	630.5	631.5	631.9	627.7	630.6
12-Dec-03	629.0	630.5	631.2	631.9	626.8	630.4
19-Dec-03	629.0	630.4	630.9	631.8	625.8	630.2
26-Dec-03	629.0	630.4	630.9	631.5	626.4	629.9

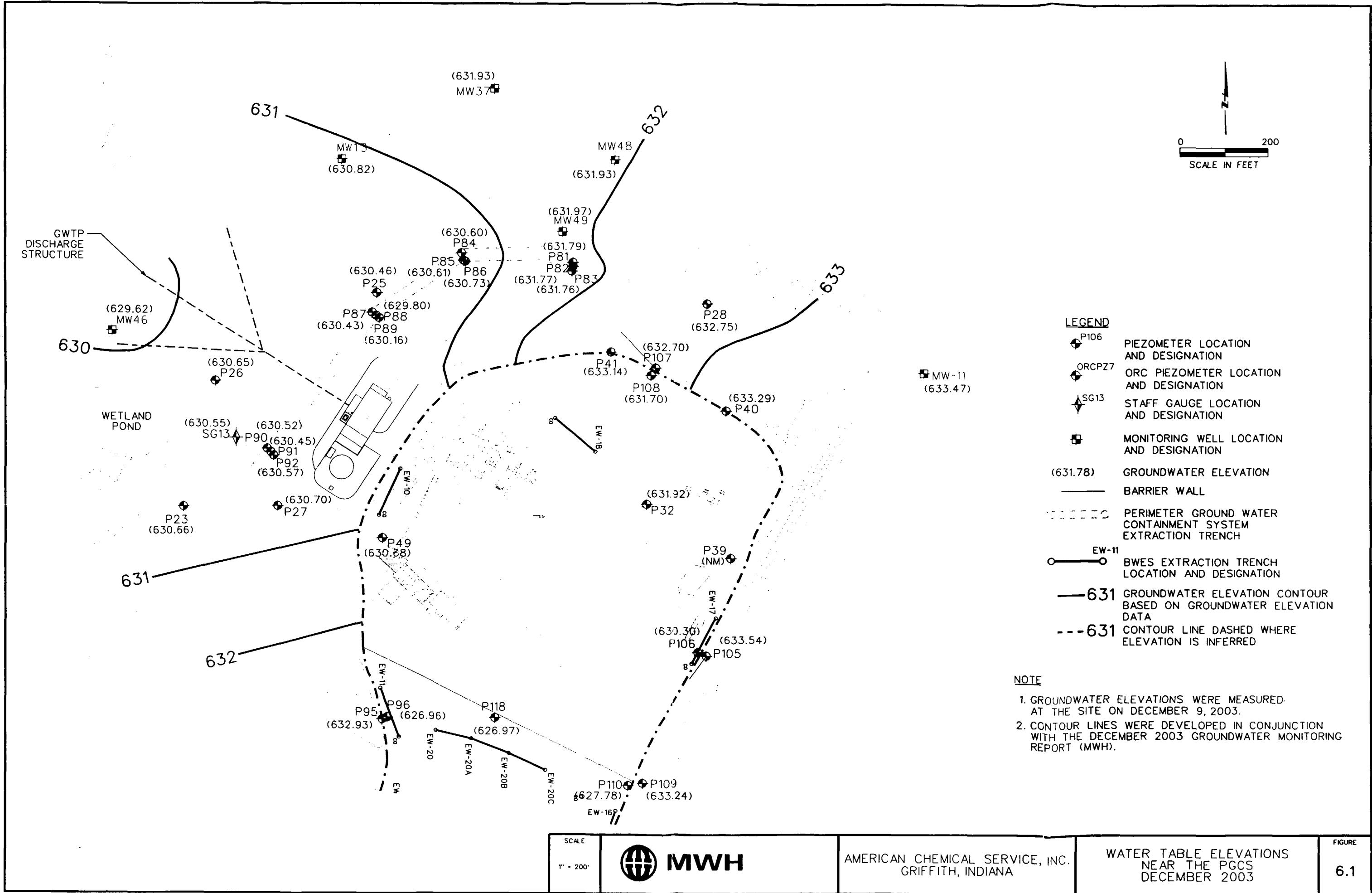
Date	Off-Site Area										
	Target Level	P-96	P-110	P-112	P-113	P-114	P-116	P-118	AS-7	AS-8	AS-9
3-Oct-03	626.0	623.5	627.7	626.4	626.2	626.6	626.1	626.6	627.2	627.2	626.5
10-Oct-03	626.0	623.5	627.7	626.4	626.2	626.6	626.1	626.6	--	--	--
17-Oct-03	626.0	623.5	627.7	626.4	626.2	626.6	626.1	626.6	627.2	627.1	626.8
24-Oct-03	626.0	623.5	627.7	626.5	626.2	626.6	626.1	626.6	627.3	627.3	626.7
31-Oct-03	626.0	623.4	627.7	626.5	626.2	626.5	626.1	626.6	627.3	627.0	626.9
7-Nov-03	626.0	623.6	627.6	626.3	626.1	626.3	626.0	626.6	--	--	--
14-Nov-03	626.0	623.7	627.7	626.5	626.5	626.2	626.6	626.7	627.7	627.5	626.8
21-Nov-03	626.0	623.8	627.7	626.6	626.8	626.0	627.2	626.7	--	--	--
28-Nov-03	626.0	623.8	627.6	626.5	626.4	626.2	626.6	626.7	627.4	627.8	626.4
5-Dec-03	626.0	623.8	627.5	626.3	626.0	626.4	626.0	626.7	--	--	--
12-Dec-03	626.0	623.9	627.6	626.4	626.2	626.5	626.2	626.8	--	--	--
19-Dec-03	626.0	624.0	627.6	626.5	626.3	626.9	626.4	626.9	--	--	--
26-Dec-03	626.0	624.2	627.6	626.7	626.4	626.9	626.5	626.9	627.4	628.2	626.8

Notes:

All water level elevations are in feet AMSL

-- indicates not water level was recorded on this date

Figures



NOTE

1. GROUNDWATER ELEVATIONS WERE MEASURED AT THE SITE ON DECEMBER 9, 2003.
 2. CONTOUR LINES WERE DEVELOPED IN CONJUNCTION WITH THE DECEMBER 2003 GROUNDWATER MONITORING REPORT (MWH).

四百一

Plot Date: 25-MAR-2004 15:00

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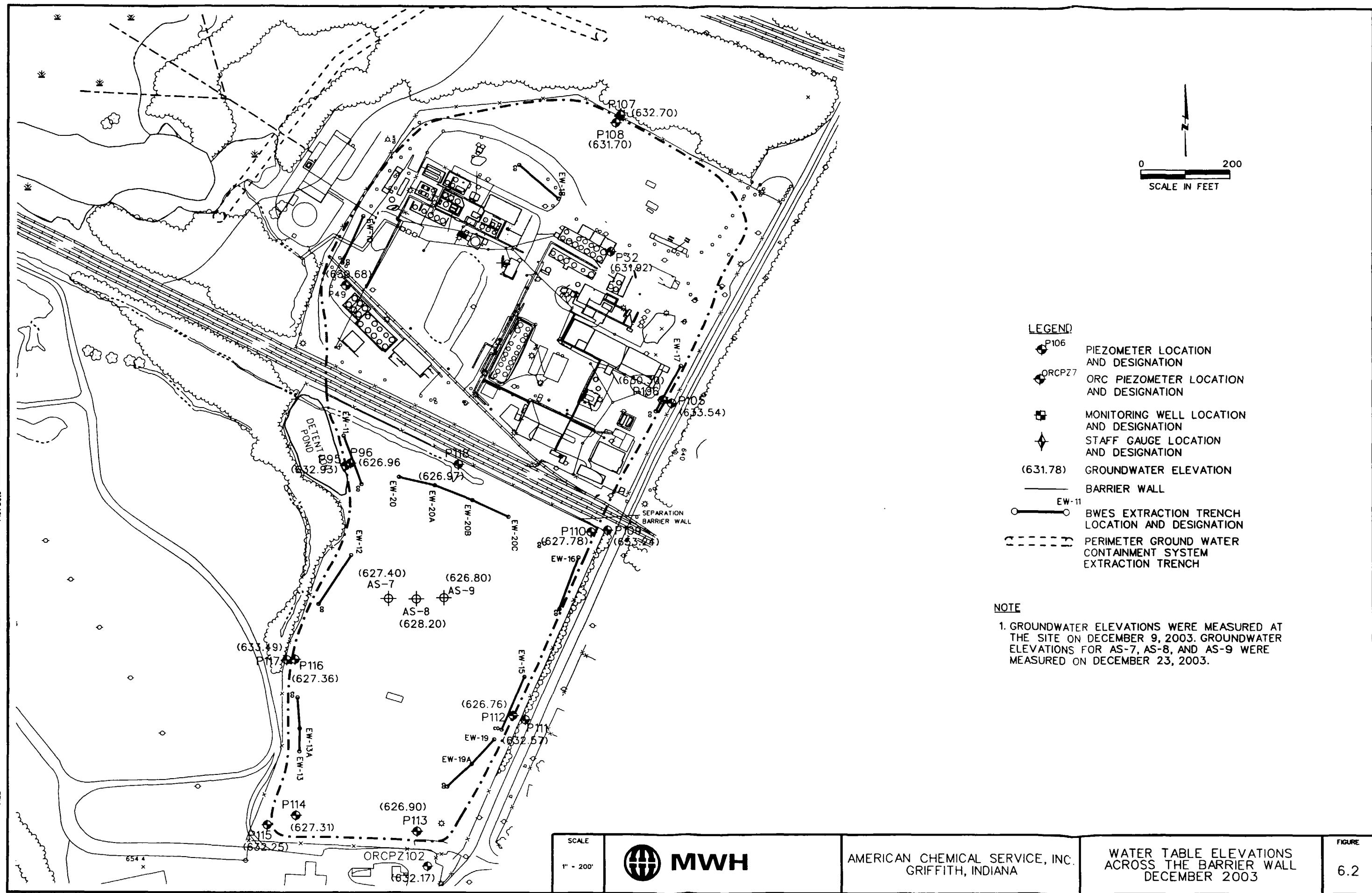
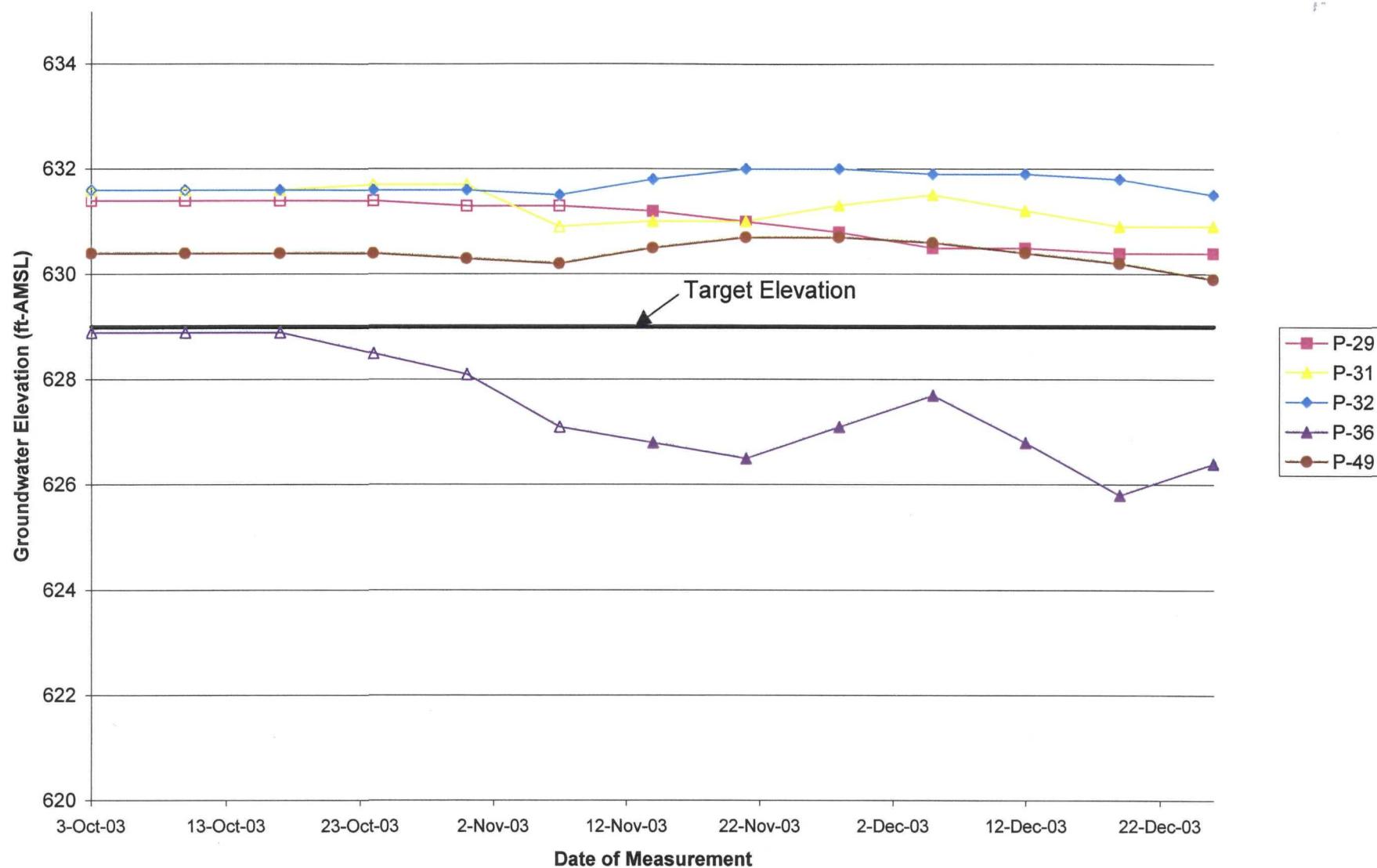


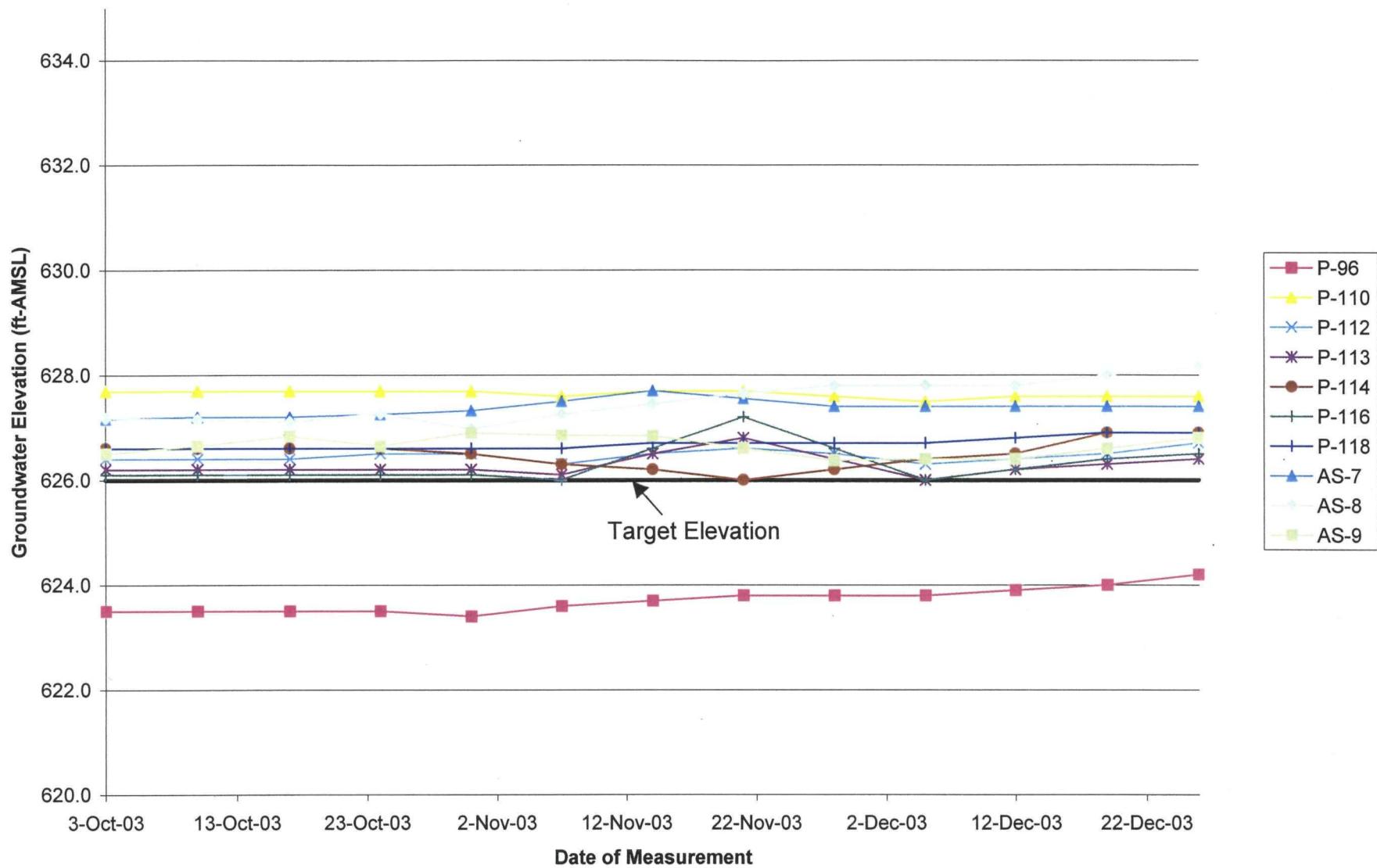

Figure 6.3
Water Level Trends Inside the Barrier Wall (Still Bottoms Pond Area)
ACS NPL Site
Griffith, Indiana



Note:

Hollow Points represent dry piezometers (data used for graphing purposes only). The bottom elevation of the piezometers may vary due to silting or removal of silt.

Figure 6.4
Water Level Trends Inside the Barrier Wall (Off-Site Area)
ACS NPL Site
Griffith, Indiana



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APPENDIX A

EFFLUENT ANALYTICAL DATA

**October 29, 2003 Compliance Sample
Laboratory Results**

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260

EFFLUENT

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: 1262

Matrix: (soil/water) WATER

Lab Sample ID: 126201

Sample wt/vol: 25 (g/ml) ML

Lab File ID: 126201B62

Level: (low/med) LOW

Date Received: 10/30/03

% Moisture: not dec.

Date Analyzed: 11/08/03

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3-----	Chloromethane	0.22	J
75-01-4-----	Vinyl Chloride	0.5	U
74-83-9-----	Bromomethane	0.12	JB 0.5 uB
75-00-3-----	Chloroethane	0.5	U
75-35-4-----	1,1-Dichloroethene	0.5	U
75-15-0-----	Carbon disulfide	0.5	U
67-64-1-----	Acetone	2	J
75-09-2-----	Methylene Chloride	0.5	U
156-60-5-----	trans-1,2-Dichloroethene	0.5	U
75-34-3-----	1,1-Dichloroethane	0.5	U
156-59-2-----	cis-1,2-Dichloroethene	0.5	U
78-93-3-----	2-butanone	4.1	_____
67-66-3-----	Chloroform	0.5	U
71-55-6-----	1,1,1-Trichloroethane	0.5	U
56-23-5-----	Carbon Tetrachloride	0.5	U
71-43-2-----	Benzene	0.5	U
107-06-2-----	1,2-Dichloroethane	0.5	U
79-01-6-----	Trichloroethene	0.5	U
78-87-5-----	1,2-Dichloropropane	0.5	U
75-27-4-----	Bromodichloromethane	0.5	U
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U
108-10-1-----	4-Methyl-2-pentanone	2.5	U
108-88-3-----	Toluene	0.25	JB 0.5 uB
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U
79-00-5-----	1,1,2-Trichloroethane	0.5	U
127-18-4-----	Tetrachloroethene	0.5	U
591-78-6-----	2-hexanone	2.5	U
124-48-1-----	Dibromochloromethane	0.5	U
108-90-7-----	Chlorobenzene	0.5	U
100-41-4-----	Ethylbenzene	0.5	U
108-38-3-----	m,p-Xylene	1	U
95-47-6-----	o-Xylene	0.5	U
100-42-5-----	Styrene	0.5	U

FORM I VOA

9/21/03

00010

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM

Method: 8260

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: 1262

Matrix: (soil/water) WATER

Lab Sample ID: 126201

Sample wt/vol: 25 (g/ml) ML

Lab File ID: 126201B62

Level: (low/med) LOW

Date Received: 10/30/03

% Moisture: not dec.

Date Analyzed: 11/08/03

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

75-25-2-----	Bromoform		0.5	U
79-34-5-----	1,1,2,2-Tetrachloroethane		0.5	U
541-73-1-----	1,3-Dichlorobenzene		0.5	U
106-46-7-----	1,4-Dichlorobenzene		0.5	U
95-50-1-----	1,2-Dichlorobenzene		0.5	U
120-82-1-----	1,2,4-Trichlorobenzene		0.5	U
540-59-0-----	1,2-Dichloroethene (total)		0.5	U
1330-20-7-----	Xylene (total)		0.5	U

FORM I VOA

12/16/03

00011

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name:	COMPUCHEM	Method:	8270C	
Lab Code:	LIBRTY	Case No.:	SAS No.:	
Matrix:	(soil/water)	WATER	SDG No.:	1262
Sample wt/vol:	1000	(g/mL) ML	Lab Sample ID:	126201
Level:	(low/med)	LOW	Lab File ID:	126201A64
% Moisture:	_____	decanted: (Y/N) _____	Date Received:	10/30/03
Concentrated Extract Volume:	1000	(uL)	Date Extracted:	10/30/03
Injection Volume:	1.0	(uL)	Date Analyzed:	10/31/03
GPC Cleanup:	(Y/N)	N	pH:	_____
Dilution Factor:	1.0			

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
111-44-4-----	Bis(2-chloroethyl)ether_____		9.6	U
106-44-5-----	4-Methylphenol_____		10	U
78-59-1-----	Isophorone_____		10	U
117-81-7-----	bis(2-ethylhexyl)Phthalate_____		6	U

FORM I SV

9/21/03

8270C

00012

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8270C

EFFLUENT

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: 1262

Matrix: (soil/water) WATER

Lab Sample ID: 126201

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: 126201B60

Level: (low/med) LOW

Date Received: 10/30/03

% Moisture: _____ decanted: (Y/N) _____

Date Extracted: 10/30/03

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/11/03

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

87-86-5-----Pentachlorophenol_____

1 U

FORM I SV

8270C

12/10/03

00011

1D
GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: COMPUCHEM

Contract: 8082

EFFLUENT

Lab Code: COMPU Case No.:

SAS No.: SDG No.: 1262

Matrix: (soil/water) WATER

Lab Sample ID: 126201

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____

Date Received: 10/30/03

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 11/02/03

Concentrated Extract Volume: 2500 (uL)

Date Analyzed: 11/06/03

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

12674-11-2-----	Aroclor-1016	0.50	U
11104-28-2-----	Aroclor-1221	0.63	U
11141-16-5-----	Aroclor-1232	0.50	U
53469-21-9-----	Aroclor-1242	0.31	U
12672-29-6-----	Aroclor-1248	0.31	U
11097-69-1-----	Aroclor-1254	0.31	U
11096-82-5-----	Aroclor-1260	0.50	U

SW-846 METALS

-1-

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM

Contract: _____

Lab Code: LIBRTY

Case No.: _____

SAS No.: _____

SDG No.: 1262Matrix (soil/water): WATERLab Sample ID: 126201Level (low/med): LOWDate Received: 10/30/03% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight):

UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	2.1	U		P
7440-41-7	Beryllium	0.49	B		P
7440-43-9	Cadmium	0.30	U		P
7439-96-5	Manganese	76.2			P
7439-97-6	Mercury	0.10	U		CV
7782-49-2	Selenium	2.5	U		P
7440-28-0	Thallium	3.7	U		P
7440-66-6	Zinc	5.3	B		P

uB

uB

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

10/31/03

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

000008

SW-846

1-CC

CLASSICAL CHEMISTRY ANALYSES DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: CompuChem Contract: _____

Lab Code: LIBRTY Case No.: _____ NRAS No.: _____

DG No.: 1262

Matrix (soil/water): WATER Lab Sample ID: 126201

Date Received: 10/30/03 % Solids: 0.00

Concentration Units (mg/L or mg/kg dry weight): mg/L

PARAMETER	CONCENTRATION	C	Q	M	DATE ANALYZED
TSS	1.00	U			11/3/03
pH	7.55				10/31/03

P. Johnson

Comments:

PH is reported in pH units.

**November 20, 2003 Compliance Sample
Laboratory Results**

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

EFFLUENT

Lab Code: LIBRTY

Case No.:

SAS No.:

SDG No.: 1582

Matrix: (soil/water) WATER

Lab Sample ID: 158201

Sample wt/vol: 25 (g/ml) ML

Lab File ID: 158201A61

Level: (low/med) LOW

Date Received: 11/21/03

% Moisture: not dec. _____

Date Analyzed: 12/04/03

GC Column: ZB-624 ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

74-87-3-----	Chloromethane	0.5	U
75-01-4-----	Vinyl Chloride	0.5	U
74-83-9-----	Bromomethane	0.17	J
75-00-3-----	Chloroethane	0.5	U
75-35-4-----	1,1-Dichloroethene	0.5	U
75-15-0-----	Carbon disulfide	0.5	U
67-64-1-----	Acetone	2.5	U
75-09-2-----	Methylene Chloride	0.14	J
156-60-5-----	trans-1,2-Dichloroethene	0.5	U
75-34-3-----	1,1-Dichloroethane	0.5	U
156-59-2-----	cis-1,2-Dichloroethene	0.5	U
78-93-3-----	2-butanone	2.5	U
67-66-3-----	Chloroform	0.5	U
71-55-6-----	1,1,1-Trichloroethane	0.5	U
56-23-5-----	Carbon Tetrachloride	0.5	U
71-43-2-----	Benzene	0.5	U
107-06-2-----	1,2-Dichloroethane	0.5	U
79-01-6-----	Trichloroethene	0.12	JB 0.5UB
78-87-5-----	1,2-Dichloropropane	0.5	U
75-27-4-----	Bromodichloromethane	0.5	U
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U
108-10-1-----	4-Methyl-2-pentanone	2.5	U
108-88-3-----	Toluene	0.24	J
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U
79-00-5-----	1,1,2-Trichloroethane	0.5	U
127-18-4-----	Tetrachloroethene	0.22	J
591-78-6-----	2-hexanone	2.5	U
124-48-1-----	Dibromochloromethane	0.5	U
108-90-7-----	Chlorobenzene	0.5	U
100-41-4-----	Ethylbenzene	0.096	J
108-38-3-----	m,p-Xylene	0.26	J
95-47-6-----	o-Xylene	0.086	J
100-42-5-----	Styrene	0.11	J

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

EFFLUENT

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: 1582

Matrix: (soil/water) WATER

Lab Sample ID: 158201

Sample wt/vol: 25 (g/ml) ML

Lab File ID: 158201A61

Level: (low/med) LOW

Date Received: 11/21/03

% Moisture: not dec. _____

Date Analyzed: 12/04/03

GC Column: ZB-624 ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
75-25-2-----	Bromoform	0.5	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U	
541-73-1-----	1,3-Dichlorobenzene	0.3	J	
106-46-7-----	1,4-Dichlorobenzene	0.33	J	
95-50-1-----	1,2-Dichlorobenzene	0.23	J	
120-82-1-----	1,2,4-Trichlorobenzene	0.64		
540-59-0-----	1,2-Dichloroethene (total)	0.5	U	
1330-20-7-----	Xylene (total)	0.38	J	

FORM I VOA

SW-846

1-CC

CLASSICAL CHEMISTRY ANALYSES DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: CompuChem

Contract: _____

Lab Code: LIBRTY

Case No.: _____

NRAS No.: _____

OG No.: 1582Matrix (soil/water): WATERLab Sample ID: 158201Date Received: 11/21/03% Solids: 0.00

Concentration Units (mg/L or mg/kg dry weight):

pH units

PARAMETER	CONCENTRATION	C	Q	M	DATE ANALYZED
pH	6.74				11/24/03

11/27/03

Comments:

02

**December 29, 2003 Compliance Sample
Laboratory Results**

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

EFFLUENT

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: 1914

Matrix: (soil/water) WATER

Lab Sample ID: 191401

Sample wt/vol: 25 (g/ml) ML

Lab File ID: 191401B61

Level: (low/med) LOW

Date Received: 12/30/03

% Moisture: not dec.

Date Analyzed: 12/31/03

GC Column: ZB-624 ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
74-87-3-----	Chloromethane	0.13	J	
75-01-4-----	Vinyl Chloride	0.15	J	
74-83-9-----	Bromomethane	0.5	U	
75-00-3-----	Chloroethane	2.4		
75-35-4-----	1,1-Dichloroethene	0.5	U	
75-15-0-----	Carbon disulfide	0.5	U	
67-64-1-----	Acetone	6.4		
75-09-2-----	Methylene Chloride	8.5		
156-60-5-----	trans-1,2-Dichloroethene	0.5	U	
75-34-3-----	1,1-Dichloroethane	1.5		
156-59-2-----	cis-1,2-Dichloroethene	2		
78-93-3-----	2-butanone	3		
67-66-3-----	Chloroform	0.51		
71-55-6-----	1,1,1-Trichloroethane	0.44	J	
56-23-5-----	Carbon Tetrachloride	0.5	U	
71-43-2-----	Benzene	0.47	J	
107-06-2-----	1,2-Dichloroethane	0.51		
79-01-6-----	Trichloroethene	0.21	J	
78-87-5-----	1,2-Dichloropropane	0.5	U	
75-27-4-----	Bromodichloromethane	0.5	U	
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U	
108-10-1-----	4-Methyl-2-pentanone	0.96	J	
108-88-3-----	Toluene	4.7		
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U	
79-00-5-----	1,1,2-Trichloroethane	0.5	U	
127-18-4-----	Tetrachloroethene	0.77		
591-78-6-----	2-hexanone	2.5	U	
124-48-1-----	Dibromochloromethane	0.5	U	
108-90-7-----	Chlorobenzene	0.5	U	
100-41-4-----	Ethylbenzene	0.75		
108-38-3-----	m,p-Xylene	2.6	B	
95-47-6-----	o-Xylene	0.91		
100-42-5-----	Styrene	0.5	U	

FORM I VOA

9/18/04

00012

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM

Method: 8260B

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: 1914

Matrix: (soil/water) WATER

Lab Sample ID: 191401

Sample wt/vol: 25 (g/ml) ML

Lab File ID: 191401B61

Level: (low/med) LOW

Date Received: 12/30/03

* Moisture: not dec. _____

Date Analyzed: 12/31/03

GC Column: ZB-624 ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
75-25-2-----	Bromoform		0.5	U
79-34-5-----	1,1,2,2-Tetrachloroethane		0.5	U
541-73-1-----	1,3-Dichlorobenzene		0.5	U
106-46-7-----	1,4-Dichlorobenzene		0.5	U
95-50-1-----	1,2-Dichlorobenzene		0.5	U
120-82-1-----	1,2,4-Trichlorobenzene		0.5	U
540-59-0-----	1,2-Dichloroethene (total)		1.9	
1330-20-7-----	Xylene (total)		3.8	B

FORM I VOA

J0013

SW-846

I-CC

CLASSICAL CHEMISTRY ANALYSES DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: CompuChem Contract:

Lab Code: Case No.: NRAS No.:

SDG No.: 1914

Matrix (soil/water): WATER Lab Sample ID: 191401

Date Received: 12/30/03 % Solids: 0.00

Concentration Units (mg/L or mg/kg dry weight): pH units

PARAMETER	CONCENTRATION	C	Q	M	DATE ANALYZED
pH	7.02				12/30/03

K10104

Comments:

**January 14, 2004 Resample
Laboratory Results (CompuChem)**

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM

Method: 8260B

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: 2019

Matrix: (soil/water) WATER

Lab Sample ID: 201901

Sample wt/vol: 25 (g/ml) ML

Lab File ID: 201901RB61

Level: (low/med) LOW

Date Received: 01/15/04

% Moisture: not dec.

Date Analyzed: 01/19/04

GC Column: ZB-624 ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
74-87-3-----	Chloromethane	0.15	J
75-01-4-----	Vinyl Chloride	0.35	J
74-83-9-----	Bromomethane	0.5	U
75-00-3-----	Chloroethane	2.4	
75-35-4-----	1,1-Dichloroethene	0.5	U
75-15-0-----	Carbon disulfide	0.5	U
67-64-1-----	Acetone	6.6	
75-09-2-----	Methylene Chloride	11	
156-60-5-----	trans-1,2-Dichloroethene	0.5	U
75-34-3-----	1,1-Dichloroethane	3.2	
156-59-2-----	cis-1,2-Dichloroethene	4.1	
78-93-3-----	2-butanone	3.2	
67-66-3-----	Chloroform	1.5	
71-55-6-----	1,1,1-Trichloroethane	1.6	
56-23-5-----	Carbon Tetrachloride	0.5	U
71-43-2-----	Benzene	0.058	J
107-06-2-----	1,2-Dichloroethane	2.3	
79-01-6-----	Trichloroethene	0.067	J
78-87-5-----	1,2-Dichloropropane	0.44	J
75-27-4-----	Bromodichloromethane	0.5	U
10061-01-5-----	cis-1,3-Dichloropropene	0.5	U
108-10-1-----	4-Methyl-2-pentanone	2.5	U
108-88-3-----	Toluene	0.39	J
10061-02-6-----	trans-1,3-Dichloropropene	0.5	U
79-00-5-----	1,1,2-Trichloroethane	0.5	U
127-18-4-----	Tetrachloroethene	0.14	J
591-78-6-----	2-hexanone	2.5	U
124-48-1-----	Dibromochloromethane	0.5	U
108-90-7-----	Chlorobenzene	0.5	U
100-41-4-----	Ethylbenzene	0.5	U
108-38-3-----	m,p-Xylene	0.2	J
95-47-6-----	o-Xylene	0.054	J
100-42-5-----	Styrene	0.5	U

FORM I VOA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM

Method: 8260B

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: 2019

Matrix: (soil/water) WATER

Lab Sample ID: 201901

Sample wt/vol: 25 (g/ml) ML

Lab File ID: 201901RB61

Level: (low/med) LOW

Date Received: 01/15/04

% Moisture: not dec. _____

Date Analyzed: 01/19/04

GC Column: ZB-624 ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2-----	Bromoform	0.5	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.5	U
541-73-1-----	1,3-Dichlorobenzene	0.5	U
106-46-7-----	1,4-Dichlorobenzene	0.5	U
95-50-1-----	1,2-Dichlorobenzene	0.5	U
120-82-1-----	1,2,4-Trichlorobenzene	0.5	U
540-59-0-----	1,2-Dichloroethene (total)	3.7	
1330-20-7-----	Xylene (total)	0.3	J

FORM I VOA

**January 21, 2004 Resample
Laboratory Results (Similabs)**



INTERNATIONAL

Date: 27-Jan-04

ANALYTICAL RESULTS

CLIENT: Montgomery Watson

Sample Description: EFFLUENT

Client Project: ACS - Griffith

Client Sample ID: Effluent

Work Order: ME0401289

Collection Date: 1/26/2004 2:30:00 PM

SIMALABS ID: ME0401289-01

Date Received: 01/26/04

Sample Matrix: AQUEOUS

Analyses	Samp Type	Result	Reporting Limit	Qual	Units	DF	Date / Time Analyzed
----------	-----------	--------	-----------------	------	-------	----	----------------------

VOLATILE ORGANICS

Method: SW8260B

Prep Date/Time:

Analyst: JB

Methylene chloride	A	11	5.0		µg/L	1	1/27/2004 9:57:00 AM
Surr: Toluene-d8	S	97.1	86.9-113		%REC	1	1/27/2004 9:57:00 AM
Surr: 4-Bromofluorobenzene	S	93.0	82.6-112		%REC	1	1/27/2004 9:57:00 AM
Surr: Dibromofluoromethane	S	109	81.3-117		%REC	1	1/27/2004 9:57:00 AM
Surr: 1,2-Dichloroethane-d4	S	106	77.5-120		%REC	1	1/27/2004 9:57:00 AM

Samp Type:	A - Analyte, S - Surrogate, I - Internal Standard T - Tentatively Identified Compound (TIC, concentration estimated)	DF - Dilution Factor
Qual:	ND - Not Detected at the Reporting Limit B - Detected in the associated Method Blank * - Exceeds Maximum Contaminant Level	S - Spike recovery outside recovery limits SD - Value diluted out R - RPD outside accepted recovery limits E - Value above quantitation range

250 West 84th Drive, Merrillville, IN 46410 TEL 800 536 8379 TEL 219 769 8378 FAX 219 769 1664
Note: All analyte was prepared and/or analyzed outside of the analytical method holding time

APPENDIX B

THERMAL OXIDIZER OFF-GAS ANALYTICAL DATA

October 2, 2003 Off-Gas Sample Laboratory Results

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 ONS IN1 OCT2

ID#: 0310073A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	1300	3500	1400	3600
Bromomethane	1300	5300	Not Detected	Not Detected
Chloroethane	1300	3600	Not Detected	Not Detected
1,1-Dichloroethene	1300	5400	Not Detected	Not Detected
Methylene Chloride	1300	4700	9700	34000
1,1-Dichloroethane	1300	5500	3000	12000
cis-1,2-Dichloroethene	1300	5400	42000	170000
Chloroform	1300	6600	2100	10000
1,1,1-Trichloroethane	1300	7400	51000	280000
Carbon Tetrachloride	1300	8600	Not Detected	Not Detected
Benzene	1300	4400	30000	98000
1,2-Dichloroethane	1300	5500	Not Detected	Not Detected
Trichloroethene	1300	7300	69000	380000
1,2-Dichloropropane	1300	6300	Not Detected	Not Detected
cis-1,3-Dichloropropene	1300	6200	Not Detected	Not Detected
Toluene	1300	5100	430000	1600000
trans-1,3-Dichloropropene	1300	6200	Not Detected	Not Detected
1,1,2-Trichloroethane	1300	7400	Not Detected	Not Detected
Tetrachloroethene	1300	9200	91000	630000
Chlorobenzene	1300	6300	Not Detected	Not Detected
Ethyl Benzene	1300	5900	42000	180000
m,p-Xylene	1300	5900	180000	780000
o-Xylene	1300	5900	46000	200000
Styrene	1300	5800	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	1300	9400	Not Detected	Not Detected
Bromodichloromethane	1300	9100	Not Detected	Not Detected
Dibromochloromethane	1300	12000	Not Detected	Not Detected
Chloromethane	5400	11000	Not Detected	Not Detected
Acetone	5400	13000	5200 J /5	13000 J
Carbon Disulfide	5400	17000	Not Detected	Not Detected
trans-1,2-Dichloroethene	5400	22000	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5400	16000	Not Detected	Not Detected
4-Methyl-2-pentanone	5400	22000	Not Detected	Not Detected
2-Hexanone	5400	22000	Not Detected	Not Detected
Bromoform	5400	56000	Not Detected	Not Detected

J = Estimated value.

Container Type: 6 Liter Silonite Canister

CRS

3/12/14

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 ONS IN1 OCT2

ID#: 0310073A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN



Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	95	70-130

CRS
3/12/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 ONS IN1 OCT2 Duplicate

ID#: 0310073A-01AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	2700	7000	1800 J /5	4800 J
Bromomethane	2700	10000	Not Detected	Not Detected
Chloroethane	2700	7200	Not Detected	Not Detected
1,1-Dichloroethene	2700	11000	1100 J /5	4300 J
Methylene Chloride	2700	9500	10000	36000
1,1-Dichloroethane	2700	11000	3100	13000
cis-1,2-Dichloroethene	2700	11000	41000	160000
Chloroform	2700	13000	2100 J /5	10000 J
1,1,1-Trichloroethane	2700	15000	51000	280000
Carbon Tetrachloride	2700	17000	Not Detected	Not Detected
Benzene	2700	8700	29000	95000
1,2-Dichloroethane	2700	11000	Not Detected	Not Detected
Trichloroethene	2700	15000	67000	370000
1,2-Dichloropropane	2700	12000	Not Detected	Not Detected
cis-1,3-Dichloropropene	2700	12000	Not Detected	Not Detected
Toluene	2700	10000	400000	1500000
trans-1,3-Dichloropropene	2700	12000	Not Detected	Not Detected
1,1,2-Trichloroethane	2700	15000	Not Detected	Not Detected
Tetrachloroethene	2700	18000	84000	580000
Chlorobenzene	2700	12000	Not Detected	Not Detected
Ethyl Benzene	2700	12000	40000	180000
m,p-Xylene	2700	12000	160000	730000
o-Xylene	2700	12000	44000	190000
Styrene	2700	12000	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	2700	19000	Not Detected	Not Detected
Bromodichloromethane	2700	18000	Not Detected	Not Detected
Dibromochloromethane	2700	23000	Not Detected	Not Detected
Chloromethane	11000	22000	Not Detected	Not Detected
Acetone	11000	26000	5600 J /5	13000 J
Carbon Disulfide	11000	34000	920 J /5	2900 J
trans-1,2-Dichloroethene	11000	43000	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	11000	32000	4300 J /5	13000 J
4-Methyl-2-pentanone	11000	45000	Not Detected	Not Detected
2-Hexanone	11000	45000	Not Detected	Not Detected
Bromoform	11000	110000	Not Detected	Not Detected

J = Estimated value.

Container Type: 6 Liter Silonite Canister

CPS
3/12/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 ONS IN1 OCT2 Duplicate

ID#: 0310073A-01AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	95	70-130

CRS
3/12/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 ONS IN2 OCT2

ID#: 0310073A-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	1500	3900	Not Detected	Not Detected
Bromomethane	1500	5900	Not Detected	Not Detected
Chloroethane	1500	4000	Not Detected	Not Detected
1,1-Dichloroethene	1500	6000	Not Detected	Not Detected
Methylene Chloride	1500	5300	9000	32000
1,1-Dichloroethane	1500	6100	2800	12000
cis-1,2-Dichloroethene	1500	6000	39000	160000
Chloroform	1500	7400	2200	11000
1,1,1-Trichloroethane	1500	8300	47000	260000
Carbon Tetrachloride	1500	9500	Not Detected	Not Detected
Benzene	1500	4800	27000	89000
1,2-Dichloroethane	1500	6100	Not Detected	Not Detected
Trichloroethene	1500	8100	65000	360000
1,2-Dichloropropane	1500	7000	Not Detected	Not Detected
cis-1,3-Dichloropropene	1500	6900	Not Detected	Not Detected
Toluene	1500	5700	390000	1500000
trans-1,3-Dichloropropene	1500	6900	Not Detected	Not Detected
1,1,2-Trichloroethane	1500	8300	Not Detected	Not Detected
Tetrachloroethene	1500	10000	82000	570000
Chlorobenzene	1500	7000	Not Detected	Not Detected
Ethyl Benzene	1500	6600	39000	170000
m,p-Xylene	1500	6600	160000	720000
o-Xylene	1500	6600	41000	180000
Styrene	1500	6400	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	1500	10000	Not Detected	Not Detected
Bromodichloromethane	1500	10000	Not Detected	Not Detected
Dibromochloromethane	1500	13000	Not Detected	Not Detected
Chloromethane	6000	12000	Not Detected	Not Detected
Acetone	6000	14000	Not Detected	Not Detected
Carbon Disulfide	6000	19000	Not Detected	Not Detected
trans-1,2-Dichloroethene	6000	24000	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	6000	18000	Not Detected	Not Detected
4-Methyl-2-pentanone	6000	25000	Not Detected	Not Detected
2-Hexanone	6000	25000	Not Detected	Not Detected
Bromoform	6000	63000	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

CRS
3/12/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 ONS IN2 OCT2

ID#: 0310073A-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Surrogates	%Recovery	Method Limits
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1,2-Dichloroethane-d4	94	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	92	70-130

CRS
3/12/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 OFS IN1 OCT2

ID#: 0310073A-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	2700	7000	Not Detected	Not Detected
Bromomethane	2700	10000	Not Detected	Not Detected
Chloroethane	2700	7200	Not Detected	Not Detected
1,1-Dichloroethene	2700	11000	Not Detected	Not Detected
Methylene Chloride	2700	9500	190000	670000
1,1-Dichloroethane	2700	11000	20000	83000
cis-1,2-Dichloroethene	2700	11000	33000	130000
Chloroform	2700	13000	8000	40000
1,1,1-Trichloroethane	2700	15000	140000	800000
Carbon Tetrachloride	2700	17000	Not Detected	Not Detected
Benzene	2700	8700	110000	340000
1,2-Dichloroethane	2700	11000	4300	18000
Trichloroethene	2700	15000	83000	450000
1,2-Dichloropropane	2700	12000	Not Detected	Not Detected
cis-1,3-Dichloropropene	2700	12000	Not Detected	Not Detected
Toluene	2700	10000	610000	2300000
trans-1,3-Dichloropropene	2700	12000	Not Detected	Not Detected
1,1,2-Trichloroethane	2700	15000	Not Detected	Not Detected
Tetrachloroethene	2700	18000	100000	710000
Chlorobenzene	2700	12000	Not Detected	Not Detected
Ethyl Benzene	2700	12000	54000	240000
m,p-Xylene	2700	12000	240000	1000000
o-Xylene	2700	12000	72000	320000
Styrene	2700	12000	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	2700	19000	Not Detected	Not Detected
Bromodichloromethane	2700	18000	Not Detected	Not Detected
Dibromochloromethane	2700	23000	Not Detected	Not Detected
Chloromethane	11000	22000	Not Detected	Not Detected
Acetone	11000	26000	120000	300000
Carbon Disulfide	11000	34000	Not Detected	Not Detected
trans-1,2-Dichloroethene	11000	43000	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	11000	32000	81000	240000
4-Methyl-2-pentanone	11000	45000	27000	110000
2-Hexanone	11000	45000	Not Detected	Not Detected
Bromoform	11000	110000	Not Detected	Not Detected

Container Type: 6 Liter Silonite Canister

CRG
3/12/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 OFS IN1 OCT2

ID#: 0310073A-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Surrogates	%Recovery	Method Limits
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1,2-Dichloroethane-d4	96	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	94	70-130

PRS
3/13/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 OFS IN2 OCT2

ID#: 0310073A-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	2700	7000	1200 J /5	3100 J
Bromomethane	2700	10000	Not Detected	Not Detected
Chloroethane	2700	7200	Not Detected	Not Detected
1,1-Dichloroethene	2700	11000	1500 J /5	6200 J
Methylene Chloride	2700	9500	180000	620000
1,1-Dichloroethane	2700	11000	18000	76000
cis-1,2-Dichloroethene	2700	11000	31000	120000
Chloroform	2700	13000	7200	36000
1,1,1-Trichloroethane	2700	15000	130000	740000
Carbon Tetrachloride	2700	17000	Not Detected	Not Detected
Benzene	2700	8700	99000	320000
1,2-Dichloroethane	2700	11000	4400	18000
Trichloroethene	2700	15000	77000	420000
1,2-Dichloropropane	2700	12000	1200 J /5	5500 J
cis-1,3-Dichloropropene	2700	12000	Not Detected	Not Detected
Toluene	2700	10000	550000	2100000
trans-1,3-Dichloropropene	2700	12000	Not Detected	Not Detected
1,1,2-Trichloroethane	2700	15000	Not Detected	Not Detected
Tetrachloroethene	2700	18000	97000	670000
Chlorobenzene	2700	12000	Not Detected	Not Detected
Ethyl Benzene	2700	12000	51000	230000
m,p-Xylene	2700	12000	230000	1000000
o-Xylene	2700	12000	67000	300000
Styrene	2700	12000	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	2700	19000	Not Detected	Not Detected
Bromodichloromethane	2700	18000	Not Detected	Not Detected
Dibromochloromethane	2700	23000	Not Detected	Not Detected
Chloromethane	11000	22000	Not Detected	Not Detected
Acetone	11000	26000	110000	270000
Carbon Disulfide	11000	34000	Not Detected	Not Detected
trans-1,2-Dichloroethene	11000	43000	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	11000	32000	73000	220000
4-Methyl-2-pentanone	11000	45000	23000	94000
2-Hexanone	11000	45000	Not Detected	Not Detected
Bromoform	11000	110000	Not Detected	Not Detected

J = Estimated value.

Container Type: 6 Liter Silonite Canister

285
3/12/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 OFS IN2 OCT2

ID#: 0310073A-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	92	70-130

CRS
3/13/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 EFF 1 OCT2

ID#: 0310073A-05A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.67	1.7	16	41
Bromomethane	0.67	2.6	0.80	3.2
Chloroethane	0.67	1.8	Not Detected	Not Detected
1,1-Dichloroethene	0.67	2.7	56	230
Methylene Chloride	0.67	2.4	13	47
1,1-Dichloroethane	0.67	2.8	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.67	2.7	11	44
Chloroform	0.67	3.3	25	120
1,1,1-Trichloroethane	0.67	3.7	0.59 J /5	3.3 J
Carbon Tetrachloride	0.67	4.3	4.2	27
Benzene	0.67	2.2	50	160
1,2-Dichloroethane	0.67	2.8	Not Detected	Not Detected
Trichloroethene	0.67	3.6	44	240
1,2-Dichloropropane	0.67	3.1	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.67	3.1	0.29 J /5	1.4 J
Toluene	0.67	2.6	3.7	14
trans-1,3-Dichloropropene	0.67	3.1	Not Detected	Not Detected
1,1,2-Trichloroethane	0.67	3.7	Not Detected	Not Detected
Tetrachloroethene	0.67	4.6	89	610
Chlorobenzene	0.67	3.1	5.4	25
Ethyl Benzene	0.67	3.0	0.45 J /5	2.0 J
m,p-Xylene	0.67	3.0	2.6	11
o-Xylene	0.67	3.0	0.70	3.1
Styrene	0.67	2.9	2.4	10
1,1,2,2-Tetrachloroethane	0.67	4.7	Not Detected	Not Detected
Bromodichloromethane	0.67	4.6	4.9	33
Dibromochloromethane	0.67	5.8	1.3	11
Chloromethane	2.7	5.6	11	23
Acetone	2.7	6.5	16	40
Carbon Disulfide	2.7	8.5	2.4 J /5	7.5 J
trans-1,2-Dichloroethene	2.7	11	7.9	32
2-Butanone (Methyl Ethyl Ketone)	2.7	8.0	2.2 J /5	6.6 J
4-Methyl-2-pentanone	2.7	11	Not Detected	Not Detected
2-Hexanone	2.7	11	Not Detected	Not Detected
Bromoform	2.7	28	Not Detected	Not Detected

J = Estimated value.

Container Type: 6 Liter Silonite Canister

CPS

3/13/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 EFF 1 OCT2

ID#: 0310073A-05A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	94	70-130

(CRS
3/12/04)

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 ONS IN1 OCT2

ID#: 0310073B-01A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	1.0
1,4-Dichlorobenzene	1.0	2.8
1,2-Dichlorobenzene	1.0	15
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	Not Detected
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected
Naphthalene	1.0	5.7
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	1.5
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Choronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 ONS IN1 OCT2

ID#: 0310073B-01A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	Not Detected
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

Surrogates	%Recovery	Method Limits
2-Fluorophenol	21 Q	50-150
Phenol-d5	65	50-150
Nitrobenzene-d5	70	50-150
2-Fluorobiphenyl	72	60-120
2,4,6-Tribromophenol	64	50-150
Terphenyl-d14	72	60-120

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AIR TOXICS LTD.

SAMPLE NAME: ACS T02 ONS IN1 OCT2 Duplicate

ID#: 0310073B-01AA

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	1.0
1,4-Dichlorobenzene	1.0	2.8
1,2-Dichlorobenzene	1.0	15
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	Not Detected
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected
Naphthalene	1.0	5.7
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	1.4
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 ONS IN1 OCT2 Duplicate

ID#: 0310073B-01AA

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	Not Detected
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

Surrogates	%Recovery	Method Limits
2-Fluorophenol	21 Q	50-150
Phenol-d5	65	50-150
Nitrobenzene-d5	71	50-150
2-Fluorobiphenyl	72	60-120
2,4,6-Tribromophenol	67	50-150
Terphenyl-d14	73	60-120

CPS
3/17/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 ONS IN2 OCT2

ID#: 0310073B-02A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)	Notes
Phenol	5.0	Not Detected	/R
bis(2-Chloroethyl) Ether	1.0	Not Detected	/R
2-Chlorophenol	5.0	Not Detected	/R
1,3-Dichlorobenzene	1.0	1.7	15
1,4-Dichlorobenzene	1.0	5.2	15
1,2-Dichlorobenzene	1.0	27	15
2-Methylphenol (o-Cresol)	5.0	Not Detected	/R
N-Nitroso-di-n-propylamine	1.0	Not Detected	/R
4-Methylphenol	5.0	Not Detected	/R
Hexachloroethane	1.0	Not Detected	/R
Nitrobenzene	1.0	Not Detected	/R
Isophorone	1.0	Not Detected	/R
2-Nitrophenol	5.0	Not Detected	/R
2,4-Dimethylphenol	5.0	Not Detected	/R
bis(2-Chloroethoxy) Methane	1.0	Not Detected	/R
2,4-Dichlorophenol	5.0	Not Detected	/R
1,2,4-Trichlorobenzene	1.0	Not Detected	/R
Naphthalene	1.0	13	15
4-Chloroaniline	10	Not Detected	/R
Hexachlorobutadiene	1.0	Not Detected	/R
4-Chloro-3-methylphenol	5.0	Not Detected	/R
2-Methylnaphthalene	1.0	3.2	15
Hexachlorocyclopentadiene	20	Not Detected	/R
2,4,6-Trichlorophenol	5.0	Not Detected	/R
2,4,5-Trichlorophenol	5.0	Not Detected	/R
2-Chloronaphthalene	1.0	Not Detected	/R
2-Nitroaniline	10	Not Detected	/R
Dimethylphthalate	5.0	Not Detected	/R
Acenaphthylene	1.0	Not Detected	/R
2,6-Dinitrotoluene	5.0	Not Detected	/R
3-Nitroaniline	10	Not Detected	/R
Acenaphthene	1.0	Not Detected	/R
2,4-Dinitrophenol	20	Not Detected	/R
4-Nitrophenol	20	Not Detected	/R
2,4-Dinitrotoluene	5.0	Not Detected	/R
Dibenzofuran	1.0	Not Detected	/R
Diethylphthalate	5.0	Not Detected	/R
Fluorene	1.0	Not Detected	/R
4-Chlorophenyl-phenyl Ether	1.0	Not Detected	/R
4-Nitroaniline	10	Not Detected	/R
4,6-Dinitro-2-methylphenol	10	Not Detected	/R

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 ONS IN2 OCT2

ID#: 0310073B-02A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)	Method
N-Nitrosodiphenylamine	10	Not Detected	IR
4-Bromophenyl-phenyl Ether	1.0	Not Detected	IR
Hexachlorobenzene	1.0	Not Detected	IR
Pentachlorophenol	20	Not Detected	IR
Phenanthrene	1.0	Not Detected	IR
Anthracene	1.0	Not Detected	IR
di-n-Butylphthalate	5.0	Not Detected	IR
Fluoranthene	1.0	Not Detected	IR
Pyrene	1.0	Not Detected	IR
Butylbenzylphthalate	5.0	Not Detected	IR
3,3'-Dichlorobenzidine	20	Not Detected	IR
Chrysene	1.0	Not Detected	IR
Benzo(a)anthracene	1.0	Not Detected	IR
bis(2-Ethylhexyl)phthalate	5.0	Not Detected	IR
Di-n-Octylphthalate	5.0	Not Detected	IR
Benzo(b)fluoranthene	1.0	Not Detected	IR
Benzo(k)fluoranthene	1.0	Not Detected	IR
Benzo(a)pyrene	1.0	Not Detected	IR
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected	IR
Dibenz(a,h)anthracene	1.0	Not Detected	IR
Benzo(g,h,i)perylene	1.0	Not Detected	IR

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

Surrogates	%Recovery	Method Limits
2-Fluorophenol	10 Q	50-150
Phenol-d5	70	50-150
Nitrobenzene-d5	76	50-150
2-Fluorobiphenyl	77	60-120
2,4,6-Tribromophenol	69	50-150
Terphenyl-d14	74	60-120

CRS
3/12/14

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 OFS IN1 OCT2

ID#: 0310073B-03A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	4.4
1,4-Dichlorobenzene	1.0	12
1,2-Dichlorobenzene	1.0	81
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	Not Detected
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	0.62 J 15
Naphthalene	1.0	25
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	1.6
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	4.0
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 OFS IN1 OCT2

ID#: 0310073B-03A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
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N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	Not Detected
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

J = Estimated value.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

Surrogates	%Recovery	Method Limits
2-Fluorophenol	25 Q	50-150
Phenol-d5	83	50-150
Nitrobenzene-d5	82	50-150
2-Fluorobiphenyl	79	60-120
2,4,6-Tribromophenol	72	50-150
Terphenyl-d14	77	60-120

CRS

3/12/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 OFS IN2 OCT2

ID#: 0310073B-04A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
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Phenol	5.0	3.7 J 15
bis(2-Chloroethyl) Ether	1.0	Not Detected 1R
2-Chlorophenol	5.0	Not Detected 1R
1,3-Dichlorobenzene	1.0	7.1 15
1,4-Dichlorobenzene	1.0	21 15
1,2-Dichlorobenzene	1.0	140 15
2-Methylphenol (o-Cresol)	5.0	Not Detected 1R
N-Nitroso-di-n-propylamine	1.0	Not Detected 1R
4-Methylphenol	5.0	Not Detected 1R
Hexachloroethane	1.0	Not Detected 1R
Nitrobenzene	1.0	Not Detected 1R
Isophorone	1.0	Not Detected 1D
2-Nitrophenol	5.0	Not Detected 1R
2,4-Dimethylphenol	5.0	2.6 J 15
bis(2-Chloroethoxy) Methane	1.0	Not Detected 1R
2,4-Dichlorophenol	5.0	Not Detected 1R
1,2,4-Trichlorobenzene	1.0	1.0 15
Naphthalene	1.0	43 15
4-Chloroaniline	10	Not Detected 1R CPS
Hexachlorobutadiene	1.0	3.0 1R 15
4-Chloro-3-methylphenol	5.0	Not Detected 1R
2-Methylnaphthalene	1.0	7.1 15
Hexachlorocyclopentadiene	20	Not Detected 1R
2,4,6-Trichlorophenol	5.0	Not Detected 1R
2,4,5-Trichlorophenol	5.0	Not Detected 1R
2-Chloronaphthalene	1.0	Not Detected 1R
2-Nitroaniline	10	Not Detected 1R
Dimethylphthalate	5.0	Not Detected 1R
Acenaphthylene	1.0	Not Detected 1R
2,6-Dinitrotoluene	5.0	Not Detected 1R
3-Nitroaniline	10	Not Detected 1R
Acenaphthene	1.0	Not Detected 1R
2,4-Dinitrophenol	20	Not Detected 1R
4-Nitrophenol	20	Not Detected 1R
2,4-Dinitrotoluene	5.0	Not Detected 1R
Dibenzofuran	1.0	Not Detected 1R
Diethylphthalate	5.0	Not Detected 1R
Fluorene	1.0	Not Detected 1R
4-Chlorophenyl-phenyl Ether	1.0	Not Detected 1R
4-Nitroaniline	10	Not Detected 1R
4,6-Dinitro-2-methylphenol	10	Not Detected 1R

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 OFS IN2 OCT2

ID#: 0310073B-04A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)	Method Limits
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N-Nitrosodiphenylamine	10	Not Detected	/R
4-Bromophenyl-phenyl Ether	1.0	Not Detected	/R
Hexachlorobenzene	1.0	Not Detected	/R
Pentachlorophenol	20	Not Detected	/R
Phenanthrene	1.0	Not Detected	/R
Anthracene	1.0	Not Detected	/R
di-n-Butylphthalate	5.0	Not Detected	/R
Fluoranthene	1.0	Not Detected	/R
Pyrene	1.0	Not Detected	/R
Butylbenzylphthalate	5.0	Not Detected	/R
3,3'-Dichlorobenzidine	20	Not Detected	/R
Chrysene	1.0	Not Detected	/R
Benzo(a)anthracene	1.0	Not Detected	/R
bis(2-Ethylhexyl)phthalate	5.0	Not Detected	/R
Di-n-Octylphthalate	5.0	Not Detected	/R
Benzo(b)fluoranthene	1.0	Not Detected	/R
Benzo(k)fluoranthene	1.0	Not Detected	/R
Benzo(a)pyrene	1.0	Not Detected	/R
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected	/R
Dibenz(a,h)anthracene	1.0	Not Detected	/R
Benzo(g,h,i)perylene	1.0	Not Detected	/R

J = Estimated value.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

Surrogates	%Recovery	Method Limits
2-Fluorophenol	5.0 Q	50-150
Phenol-d5	76	50-150
Nitrobenzene-d5	91	50-150
2-Fluorobiphenyl	80	60-120
2,4,6-Tribromophenol	70	50-150
Terphenyl-d14	79	60-120

CRS

3/12/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 EFF 1 OCT2

ID#: 0310073B-05A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
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Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	Not Detected
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected
Naphthalene	1.0	Not Detected
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

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212/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 EFF 1 OCT2

ID#: 0310073B-05A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN



Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	Not Detected
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

Container Type: XAD Tube

Surrogates	%Recovery	Method Limits
2-Fluorophenol	70	50-150
Phenol-d5	69	50-150
Nitrobenzene-d5	66	50-150
2-Fluorobiphenyl	65	60-120
2,4,6-Tribromophenol	66	50-150
Terphenyl-d14	68	60-120

CRS
3/12/04

November 6, 2003 Off-Gas Sample Laboratory Results

TO-13 11/6/03

AIR TOXICS LTD.

SAMPLE NAME: ACS TOXINS IN1 NOV6

ID#: 0311110B-01A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	1.7
1,4-Dichlorobenzene	1.0	4.7
1,2-Dichlorobenzene	1.0	25
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	1.4
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected
Naphthalene	1.0	11
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	1.7
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2ONS IN1 NOV6

ID#: 0311110B-01A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (μ g)	Amount (μ g)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	3.0 J 15B
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	0.64 J 15
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

J = Estimated value.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

Surrogates	%Recovery	Method Limits
2-Fluorophenol	21 Q	50-150
Phenol-d5	72	50-150
Nitrobenzene-d5	78	50-150
2-Fluorobiphenyl	71	60-120
2,4,6-Tribromophenol	68	50-150
Terphenyl-d14	81	60-120

CPS
12/29/03

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2ONS IN2 NOV6

ID#: 0311110B-02A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	2.1
1,4-Dichlorobenzene	1.0	6.1
1,2-Dichlorobenzene	1.0	32
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	1.8
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected
Naphthalene	1.0	16
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	2.4
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2ONS IN2 NOV6

ID#: 0311110B-02A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
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N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	1.4 J 1513
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	0.63 J 15
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

J = Estimated value.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

Surrogates	%Recovery	Method Limits
2-Fluorophenol	14 Q	50-150
Phenol-d5	72	50-150
Nitrobenzene-d5	77	50-150
2-Fluorobiphenyl	75	60-120
2,4,6-Tribromophenol	67	50-150
Terphenyl-d14	77	60-120

(CRS)
12/29/03

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2OFS IN1 NOV6

ID#: 0311110B-03A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	4.6
1,4-Dichlorobenzene	1.0	15
1,2-Dichlorobenzene	1.0	110
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	3.6 J 15
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	18
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	1.4
Naphthalene	1.0	56
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	3.0
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	7.9
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2OFS IN1 NOV6

ID#: 0311110B-03A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	1.5 J 15R
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	0.90 J 15
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

J = Estimated value.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

Surrogates	%Recovery	Method Limits
2-Fluorophenol	21 Q	50-150
Phenol-d5	78	50-150
Nitrobenzene-d5	84	50-150
2-Fluorobiphenyl	72	60-120
2,4,6-Tribromophenol	64	50-150
Terphenyl-d14	78	60-120

CRS

7/21/03

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2OFS IN2 NOV6

ID#: 0311110B-04A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

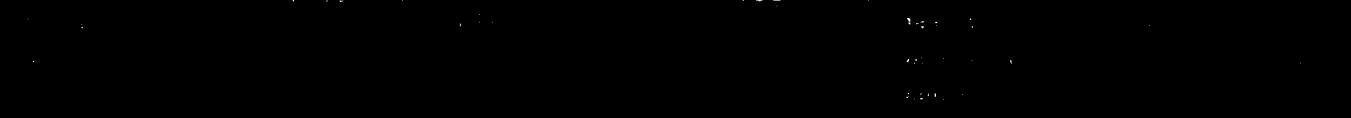
Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	5.6
1,4-Dichlorobenzene	1.0	17
1,2-Dichlorobenzene	1.0	120
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	4.9 J 15
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	22
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	1.6
Naphthalene	1.0	67
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	3.4
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	9.4
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2OFS IN2 NOV6

ID#: 0311110B-04A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN



Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	0.73 J 15
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

J = Estimated value.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

Surrogates	%Recovery	Method Limits
2-Fluorophenol	22 Q	50-150
Phenol-d5	85	50-150
Nitrobenzene-d5	90	50-150
2-Fluorobiphenyl	74	60-120
2,4,6-Tribromophenol	65	50-150
Terphenyl-d14	78	60-120

CRS
12/29/03

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 EFF1 NOV6

ID#: 0311110B-05A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (μ g)	Amount (μ g)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	Not Detected
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected
Naphthalene	1.0	Not Detected
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	0.38 J 15
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 EFF1 NOV6

ID#: 0311110B-05A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
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N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	0.53 J 15
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	1.6 J 15R
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	0.82 J 15
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

J = Estimated value.

Q = Exceeds Quality Control limits.

Container Type: XAD Tube

Surrogates	%Recovery	Method Limits
2-Fluorophenol	54	50-150
Phenol-d5	54	50-150
Nitrobenzene-d5	51	50-150
2-Fluorobiphenyl	51 Q	60-120
2,4,6-Tribromophenol	65	50-150
Terphenyl-d14	73	60-120

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TO-14a 11/6/03

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2ONS IN1 NOV6

ID#: 0311110A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	1300	3500	3600	9400
Bromomethane	1300	5300	Not Detected	Not Detected
Chloroethane	1300	3600	Not Detected	Not Detected
1,1-Dichloroethene	1300	5400	1700	6800
Methylene Chloride	1300	4700	13000	44000
1,1-Dichloroethane	1300	5500	4000	16000
cis-1,2-Dichloroethene	1300	5400	49000	200000
Chloroform	1300	6600	3700	18000
1,1,1-Trichloroethane	1300	7400	54000	300000
Carbon Tetrachloride	1300	8600	Not Detected	Not Detected
Benzene	1300	4400	37000	120000
1,2-Dichloroethane	1300	5500	780 J /J	3200 J
Trichloroethene	1300	7300	82000	440000
1,2-Dichloropropane	1300	6300	1000 J /J	4800 J
cis-1,3-Dichloropropene	1300	6200	Not Detected	Not Detected
Toluene	1300	5100	580000 E	2200000 E
trans-1,3-Dichloropropene	1300	6200	Not Detected	Not Detected
1,1,2-Trichloroethane	1300	7400	Not Detected	Not Detected
Tetrachloroethene	1300	9200	160000	1100000
Chlorobenzene	1300	6300	620 J /J	2900 J
Ethyl Benzene	1300	5900	81000	360000
m,p-Xylene	1300	5900	290000	1300000
o-Xylene	1300	5900	82000	360000
Styrene	1300	5800	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	1300	9400	Not Detected	Not Detected
Bromodichloromethane	1300	9100	Not Detected	Not Detected
Dibromochloromethane	1300	12000	Not Detected	Not Detected
Chloromethane	5400	11000	Not Detected	Not Detected
Acetone	5400	13000	1600 J /J	3800 J
Carbon Disulfide	5400	17000	Not Detected	Not Detected
trans-1,2-Dichloroethene	5400	22000	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5400	16000	1400 J /J	4000 J
4-Methyl-2-pentanone	5400	22000	6200	26000
2-Hexanone	5400	22000	Not Detected	Not Detected
Bromoform	5400	56000	Not Detected	Not Detected

J = Estimated value.

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister

CRS
12/29/03

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2ONS IN1 NOV6

ID#: 0311110A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

CES
12/29/03

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2ONS IN2 NOV6

ID#: 0311110A-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	1300	3500	3700	9700
Bromomethane	1300	5300	Not Detected	Not Detected
Chloroethane	1300	3600	Not Detected	Not Detected
1,1-Dichloroethene	1300	5400	1600	6500
Methylene Chloride	1300	4700	13000	45000
1,1-Dichloroethane	1300	5500	4000	16000
cis-1,2-Dichloroethene	1300	5400	50000	200000
Chloroform	1300	6600	3800	19000
1,1,1-Trichloroethane	1300	7400	54000	300000
Carbon Tetrachloride	1300	8600	Not Detected	Not Detected
Benzene	1300	4400	37000	120000
1,2-Dichloroethane	1300	5500	770 J 15	3200 J
Trichloroethene	1300	7300	82000	450000
1,2-Dichloropropane	1300	6300	1100 J 15	5200 J
cis-1,3-Dichloropropene	1300	6200	Not Detected	Not Detected
Toluene	1300	5100	590000 E	2300000 E
trans-1,3-Dichloropropene	1300	6200	Not Detected	Not Detected
1,1,2-Trichloroethane	1300	7400	Not Detected	Not Detected
Tetrachloroethene	1300	9200	150000	1000000
Chlorobenzene	1300	6300	630 J 15	3000 J
Ethyl Benzene	1300	5900	83000	370000
m,p-Xylene	1300	5900	300000	1300000
o-Xylene	1300	5900	87000	380000
Styrene	1300	5800	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	1300	9400	Not Detected	Not Detected
Bromodichloromethane	1300	9100	Not Detected	Not Detected
Dibromochloromethane	1300	12000	Not Detected	Not Detected
Chloromethane	5400	11000	Not Detected	Not Detected
Acetone	5400	13000	1600 J 15	3800 J
Carbon Disulfide	5400	17000	Not Detected	Not Detected
trans-1,2-Dichloroethene	5400	22000	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5400	16000	1300 J 15	3900 J
4-Methyl-2-pentanone	5400	22000	6200	26000
2-Hexanone	5400	22000	Not Detected	Not Detected
Bromoform	5400	56000	Not Detected	Not Detected

J = Estimated value.

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister

12/29/03

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2ONS IN2 NOV6

ID#: 0311110A-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

CRS
12/29/03

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2OFS IN1 NOV6

ID#: 0311110A-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	1300	3500	850 J 15	2200 J
Bromomethane	1300	5300	Not Detected	Not Detected
Chloroethane	1300	3600	Not Detected	Not Detected
1,1-Dichloroethene	1300	5400	1500	6100
Methylene Chloride	1300	4700	89000	310000
1,1-Dichloroethane	1300	5500	13000	54000
cis-1,2-Dichloroethene	1300	5400	25000	100000
Chloroform	1300	6600	5900	29000
1,1,1-Trichloroethane	1300	7400	100000	570000
Carbon Tetrachloride	1300	8600	Not Detected	Not Detected
Benzene	1300	4400	83000	270000
1,2-Dichloroethane	1300	5500	3700	15000
Trichloroethene	1300	7300	67000	370000
1,2-Dichloropropane	1300	6300	1200 J 15	5600 J
cis-1,3-Dichloropropene	1300	6200	Not Detected	Not Detected
Toluene	1300	5100	480000	1800000
trans-1,3-Dichloropropene	1300	6200	Not Detected	Not Detected
1,1,2-Trichloroethane	1300	7400	Not Detected	Not Detected
Tetrachloroethene	1300	9200	88000	600000
Chlorobenzene	1300	6300	200 J 15	950 J
Ethyl Benzene	1300	5900	56000	250000
m,p-Xylene	1300	5900	240000	1000000
o-Xylene	1300	5900	79000	350000
Styrene	1300	5800	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	1300	9400	Not Detected	Not Detected
Bromodichloromethane	1300	9100	Not Detected	Not Detected
Dibromochloromethane	1300	12000	Not Detected	Not Detected
Chloromethane	5400	11000	Not Detected	Not Detected
Acetone	5400	13000	82000	200000
Carbon Disulfide	5400	17000	Not Detected	Not Detected
trans-1,2-Dichloroethene	5400	22000	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5400	16000	67000	200000
4-Methyl-2-pentanone	5400	22000	32000	130000
2-Hexanone	5400	22000	Not Detected	Not Detected
Bromoform	5400	56000	Not Detected	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

CRS
12/29/03

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2OFS IN1 NOV6

ID#: 0311110A-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

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12/29/03)

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2OFS IN2 NOV6

ID#: 0311110A-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	1300	3500	810 J 15	2100 J
Bromomethane	1300	5300	Not Detected	Not Detected
Chloroethane	1300	3600	Not Detected	Not Detected
1,1-Dichloroethene	1300	5400	1500	6000
Methylene Chloride	1300	4700	90000	320000
1,1-Dichloroethane	1300	5500	13000	55000
cis-1,2-Dichloroethene	1300	5400	25000	100000
Chloroform	1300	6600	6000	30000
1,1,1-Trichloroethane	1300	7400	100000	580000
Carbon Tetrachloride	1300	8600	Not Detected	Not Detected
Benzene	1300	4400	84000	270000
1,2-Dichloroethane	1300	5500	4000	16000
Trichloroethene	1300	7300	69000	380000
1,2-Dichloropropane	1300	6300	1200 J 15	5500 J
cis-1,3-Dichloropropene	1300	6200	Not Detected	Not Detected
Toluene	1300	5100	480000	1800000
trans-1,3-Dichloropropene	1300	6200	Not Detected	Not Detected
1,1,2-Trichloroethane	1300	7400	Not Detected	Not Detected
Tetrachloroethene	1300	9200	90000	620000
Chlorobenzene	1300	6300	200 J 15	920 J
Ethyl Benzene	1300	5900	58000	260000
m,p-Xylene	1300	5900	240000	1100000
o-Xylene	1300	5900	83000	360000
Styrene	1300	5800	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	1300	9400	Not Detected	Not Detected
Bromodichloromethane	1300	9100	Not Detected	Not Detected
Dibromochloromethane	1300	12000	Not Detected	Not Detected
Chloromethane	5400	11000	Not Detected	Not Detected
Acetone	5400	13000	84000	200000
Carbon Disulfide	5400	17000	Not Detected	Not Detected
trans-1,2-Dichloroethene	5400	22000	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5400	16000	68000	200000
4-Methyl-2-pentanone	5400	22000	31000	130000
2-Hexanone	5400	22000	Not Detected	Not Detected
Bromoform	5400	56000	Not Detected	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

CQS
12/29/13

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2OFS IN2 NOV6

ID#: 0311110A-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

CRS
17/29/13

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 EFF1 NOV6

ID#: 0311110A-05A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Vinyl Chloride	0.67	1.7	21	55
Bromomethane	0.67	2.6	1.4	5.5
Chloroethane	0.67	1.8	0.81	2.2
1,1-Dichloroethene	0.67	2.7	53	210
Methylene Chloride	0.67	2.4	20	72
1,1-Dichloroethane	0.67	2.8	1.5	6.3
cis-1,2-Dichloroethene	0.67	2.7	37	150
Chloroform	0.67	3.3	8.3	41
1,1,1-Trichloroethane	0.67	3.7	13	70
Carbon Tetrachloride	0.67	4.3	3.8	24
Benzene	0.67	2.2	91	290
1,2-Dichloroethane	0.67	2.8	0.72	2.9
Trichloroethene	0.67	3.6	74	400
1,2-Dichloropropane	0.67	3.1	0.31 J 15	1.5 J
cis-1,3-Dichloropropene	0.67	3.1	0.56 J 15	2.6 J
Toluene	0.67	2.6	200	780
trans-1,3-Dichloropropene	0.67	3.1	0.47 J 15	2.2 J
1,1,2-Trichloroethane	0.67	3.7	Not Detected	Not Detected
Tetrachloroethene	0.67	4.6	170	1200
Chlorobenzene	0.67	3.1	5.6	26
Ethyl Benzene	0.67	3.0	27	120
m,p-Xylene	0.67	3.0	110	490
o-Xylene	0.67	3.0	28	120
Styrene	0.67	2.9	8.0	35
1,1,2,2-Tetrachloroethane	0.67	4.7	Not Detected	Not Detected
Bromodichloromethane	0.67	4.6	18	130
Dibromochloromethane	0.67	5.8	24	210
Chloromethane	2.7	5.6	18	38
Acetone	2.7	6.5	12	30
Carbon Disulfide	2.7	8.5	0.84 J 15	2.7 J
trans-1,2-Dichloroethene	2.7	11	12	46
2-Butanone (Methyl Ethyl Ketone)	2.7	8.0	3.7	11
4-Methyl-2-pentanone	2.7	11	2.2 J 15	9.0 J
2-Hexanone	2.7	11	Not Detected	Not Detected
Bromoform	2.7	28	13	140

J = Estimated value.

Container Type: 6 Liter Summa Canister

PRS
10/29/03

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 EFF1 NOV6

ID#: 0311110A-05A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	103	70-130

C85
12/29/03

December 4, 2003 Off-Gas Sample Laboratory Results

TO-13 12/4/03

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 ONS IN1 Dec4

ID#: 0312097B-01A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected
1,4-Dichlorobenzene	1.0	1.1
1,2-Dichlorobenzene	1.0	5.0
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	0.77 J /5
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected
Naphthalene	1.0	1.4
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

1/7/04

ERS

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 ONS IN1 Dec4

ID#: 0312097B-01A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	0.55 J 15
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	1.0 J 15
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

J = Estimated value.

Container Type: XAD Tube

Surrogates	%Recovery	Method Limits
2-Fluorophenol	52	50-150
Phenol-d5	80	50-150
Nitrobenzene-d5	75	50-150
2-Fluorobiphenyl	76	60-120
2,4,6-Tribromophenol	77	50-150
Terphenyl-d14	84	60-120

CRS
1/7/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 OFS IN1 Dec4

ID#: 0312097B-02A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected /R
bis(2-Chloroethyl) Ether	1.0	3.4 /5
2-Chlorophenol	5.0	Not Detected /R
1,3-Dichlorobenzene	1.0	2.9 /5
1,4-Dichlorobenzene	1.0	8.7 /5
1,2-Dichlorobenzene	1.0	54 /5
2-Methylphenol (o-Cresol)	5.0	Not Detected /R
N-Nitroso-di-n-propylamine	1.0	Not Detected /R
4-Methylphenol	5.0	Not Detected /R
Hexachloroethane	1.0	Not Detected /R
Nitrobenzene	1.0	Not Detected /R
Isophorone	1.0	6.8 /5
2-Nitrophenol	5.0	Not Detected /R
2,4-Dimethylphenol	5.0	Not Detected /R
bis(2-Chloroethoxy) Methane	1.0	Not Detected /R
2,4-Dichlorophenol	5.0	Not Detected /R
1,2,4-Trichlorobenzene	1.0	0.71 J /5
Naphthalene	1.0	26 /5
4-Chloroaniline	10	Not Detected /R
Hexachlorobutadiene	1.0	1.7 /5
4-Chloro-3-methylphenol	5.0	Not Detected /R
2-Methylnaphthalene	1.0	4.6 /5
Hexachlorocyclopentadiene	20	Not Detected /R
2,4,6-Trichlorophenol	5.0	Not Detected /R
2,4,5-Trichlorophenol	5.0	Not Detected /R
2-Chloronaphthalene	1.0	Not Detected /R
2-Nitroaniline	10	Not Detected /R
Dimethylphthalate	5.0	Not Detected /R
Acenaphthylene	1.0	Not Detected /R
2,6-Dinitrotoluene	5.0	Not Detected /R
3-Nitroaniline	10	Not Detected /R
Acenaphthene	1.0	Not Detected /R
2,4-Dinitrophenol	20	Not Detected /R
4-Nitrophenol	20	Not Detected /R
2,4-Dinitrotoluene	5.0	Not Detected /R
Dibenzofuran	1.0	Not Detected /R
Diethylphthalate	5.0	Not Detected /R
Fluorene	1.0	Not Detected /R
4-Chlorophenyl-phenyl Ether	1.0	Not Detected /R
4-Nitroaniline	10	Not Detected /R
4,6-Dinitro-2-methylphenol	10	Not Detected /R

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 OFS IN1 Dec4

ID#: 0312097B-02A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt Limit (ug)	Amount (ug)
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N-Nitrosodiphenylamine	10	Not Detected /R
4-Bromophenyl-phenyl Ether	1.0	Not Detected /R
Hexachlorobenzene	1.0	Not Detected /R
Pentachlorophenol	20	Not Detected /R
Phenanthrene	1.0	Not Detected /R
Anthracene	1.0	Not Detected /R
di-n-Butylphthalate	5.0	Not Detected /R
Fluoranthene	1.0	Not Detected /R
Pyrene	1.0	Not Detected /R
Butylbenzylphthalate	5.0	3.6 J /S
3,3'-Dichlorobenzidine	20	Not Detected /R
Chrysene	1.0	Not Detected /R
Benzo(a)anthracene	1.0	Not Detected /R
bis(2-Ethylhexyl)phthalate	5.0	0.68 J /S
Di-n-Octylphthalate	5.0	Not Detected /R
Benzo(b)fluoranthene	1.0	Not Detected /R
Benzo(k)fluoranthene	1.0	Not Detected /R
Benzo(a)pyrene	1.0	Not Detected /R
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected /R
Dibenz(a,h)anthracene	1.0	Not Detected /R
Benzo(g,h,i)perylene	1.0	Not Detected /R

J = Estimated value.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

Surrogates	%Recovery	Method Limits
2-Fluorophenol	6.6 Q	50-150
Phenol-d5	85	50-150
Nitrobenzene-d5	68	50-150
2-Fluorobiphenyl	78	60-120
2,4,6-Tribromophenol	70	50-150
Terphenyl-d14	78	60-120

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11/10/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 IN1 Dec4

ID#: 0312097B-03A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	1.5
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	1.5
<u>1,4-Dichlorobenzene</u>	1.0	4.6
1,2-Dichlorobenzene	1.0	30
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	3.6
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected
Naphthalene	1.0	13
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	0.73 J 15
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	2.2
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 IN1 Dec4

ID#: 0312097B-03A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN



Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	4.6 J 15
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	0.66 J 15
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

J = Estimated value.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

Surrogates	%Recovery	Method Limits
2-Fluorophenol	14 Q	50-150
Phenol-d5	82	50-150
Nitrobenzene-d5	75	50-150
2-Fluorobiphenyl	82	60-120
2,4,6-Tribromophenol	77	50-150
Terphenyl-d14	85	60-120

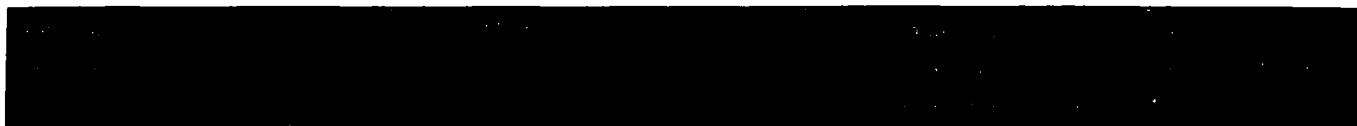
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11/10/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 IN2 Dec4

ID#: 0312097B-04A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN



Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	1.4
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	1.2
<u>1,4-Dichlorobenzene</u>	<u>1.0</u>	<u>3.8</u>
1,2-Dichlorobenzene	1.0	26
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	3.1
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected
Naphthalene	1.0	12
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	0.72 J 15
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	1.8
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

CRS
117/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 IN2 Dec4

ID#: 0312097B-04A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	0.49 J 15
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	0.84 J 15
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

J = Estimated value.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

Surrogates	%Recovery	Method Limits
2-Fluorophenol	16 Q	50-150
Phenol-d5	79	50-150
Nitrobenzene-d5	69	50-150
2-Fluorobiphenyl	77	60-120
2,4,6-Tribromophenol	74	50-150
Terphenyl-d14	81	60-120

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117/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 EFF1 Dec4

ID#: 0312097B-05A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
Phenol	5.0	Not Detected
bis(2-Chloroethyl) Ether	1.0	Not Detected
2-Chlorophenol	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected
2-Methylphenol (o-Cresol)	5.0	Not Detected
N-Nitroso-di-n-propylamine	1.0	Not Detected
4-Methylphenol	5.0	Not Detected
Hexachloroethane	1.0	Not Detected
Nitrobenzene	1.0	Not Detected
Isophorone	1.0	Not Detected
2-Nitrophenol	5.0	Not Detected
2,4-Dimethylphenol	5.0	Not Detected
bis(2-Chloroethoxy) Methane	1.0	Not Detected
2,4-Dichlorophenol	5.0	Not Detected
1,2,4-Trichlorobenzene	1.0	Not Detected
Naphthalene	1.0	Not Detected
4-Chloroaniline	10	Not Detected
Hexachlorobutadiene	1.0	Not Detected
4-Chloro-3-methylphenol	5.0	Not Detected
2-Methylnaphthalene	1.0	Not Detected
Hexachlorocyclopentadiene	20	Not Detected
2,4,6-Trichlorophenol	5.0	Not Detected
2,4,5-Trichlorophenol	5.0	Not Detected
2-Chloronaphthalene	1.0	Not Detected
2-Nitroaniline	10	Not Detected
Dimethylphthalate	5.0	Not Detected
Acenaphthylene	1.0	Not Detected
2,6-Dinitrotoluene	5.0	Not Detected
3-Nitroaniline	10	Not Detected
Acenaphthene	1.0	Not Detected
2,4-Dinitrophenol	20	Not Detected
4-Nitrophenol	20	Not Detected
2,4-Dinitrotoluene	5.0	Not Detected
Dibenzofuran	1.0	Not Detected
Diethylphthalate	5.0	Not Detected
Fluorene	1.0	Not Detected
4-Chlorophenyl-phenyl Ether	1.0	Not Detected
4-Nitroaniline	10	Not Detected
4,6-Dinitro-2-methylphenol	10	Not Detected

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11/7/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 EFF1 Dec4

ID#: 0312097B-05A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

Compound	Rpt. Limit (ug)	Amount (ug)
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N-Nitrosodiphenylamine	10	Not Detected
4-Bromophenyl-phenyl Ether	1.0	Not Detected
Hexachlorobenzene	1.0	Not Detected
Pentachlorophenol	20	Not Detected
Phenanthrene	1.0	Not Detected
Anthracene	1.0	Not Detected
di-n-Butylphthalate	5.0	Not Detected
Fluoranthene	1.0	Not Detected
Pyrene	1.0	Not Detected
Butylbenzylphthalate	5.0	Not Detected
3,3'-Dichlorobenzidine	20	Not Detected
Chrysene	1.0	Not Detected
Benzo(a)anthracene	1.0	Not Detected
bis(2-Ethylhexyl)phthalate	5.0	Not Detected
Di-n-Octylphthalate	5.0	Not Detected
Benzo(b)fluoranthene	1.0	Not Detected
Benzo(k)fluoranthene	1.0	Not Detected
Benzo(a)pyrene	1.0	Not Detected
Indeno(1,2,3-c,d)pyrene	1.0	Not Detected
Dibenz(a,h)anthracene	1.0	Not Detected
Benzo(g,h,i)perylene	1.0	Not Detected

Container Type: XAD Tube

Surrogates	%Recovery	Method Limits
2-Fluorophenol	80	50-150
Phenol-d5	84	50-150
Nitrobenzene-d5	81	50-150
2-Fluorobiphenyl	81	60-120
2,4,6-Tribromophenol	80	50-150
Terphenyl-d14	81	60-120

EPSS
1/7/04

TO-14 12/4/03

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 ONS IN1 Dec4

ID#: 0312097AR1-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	530	2000	1400	5100
Bromomethane	530	Not Detected	2100	Not Detected
Chloroethane	530	Not Detected /15	1400	Not Detected
1,1-Dichloroethene	530	790	2100	3200
Methylene Chloride	530	6400	1900	22000
1,1-Dichloroethane	530	2100	2200	8500
cis-1,2-Dichloroethene	530	22000	2100	87000
Chloroform	530	2200	2600	11000
1,1,1-Trichloroethane	530	17000	2900	94000
Carbon Tetrachloride	530	Not Detected	3400	Not Detected
Benzene	530	7800	1700	25000
1,2-Dichloroethane	530	280 J /5	2200	1200 J
Trichloroethene	530	15000	2900	81000
1,2-Dichloropropane	530	400 J /5	2500	1900 J
cis-1,3-Dichloropropene	530	Not Detected	2400	Not Detected
Toluene	530	84000	2000	320000
trans-1,3-Dichloropropene	530	Not Detected	2400	Not Detected
1,1,2-Trichloroethane	530	Not Detected	2900	Not Detected
Tetrachloroethene	530	17000	3600	120000
Chlorobenzene	530	Not Detected	2500	Not Detected
Ethyl Benzene	530	7600	2300	33000
m,p-Xylene	530	27000	2300	120000
o-Xylene	530	9100	2300	40000
Styrene	530	Not Detected	2300	Not Detected
1,1,2,2-Tetrachloroethane	530	Not Detected	3700	Not Detected
Bromodichloromethane	530	Not Detected	3600	Not Detected
Dibromochloromethane	530	Not Detected	4600	Not Detected
Chloromethane	2100	Not Detected	4400	Not Detected
Acetone	2100	830 J /5	5100	2000 J
Carbon Disulfide	2100	Not Detected	6700	Not Detected
trans-1,2-Dichloroethene	2100	Not Detected	8500	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2100	1200 J /5	6400	3500 J
4-Methyl-2-pentanone	2100	1600 J /5	8800	6800 J
2-Hexanone	2100	Not Detected	8800	Not Detected
Bromoform	2100	Not Detected	22000	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

CRS

11/7/03

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 ONS IN1 Dec4

ID#: 0312097AR1-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	98	70-130

CRS
117103

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 OFS IN1 Dec4

ID#: 0312097AR1-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	1300	550 J /S	3500	1400 J
Bromomethane	1300	Not Detected	5300	Not Detected
Chloroethane	1300	Not Detected /U5	3600	Not Detected
1,1-Dichloroethene	1300	2100	5400	8300
Methylene Chloride	1300	79000	4700	280000
1,1-Dichloroethane	1300	9500	5500	39000
cis-1,2-Dichloroethene	1300	17000	5400	70000
Chloroform	1300	4900	6600	24000
1,1,1-Trichloroethane	1300	78000	7400	440000
Carbon Tetrachloride	1300	Not Detected	8600	Not Detected
Benzene	1300	57000	4400	180000
1,2-Dichloroethane	1300	2700	5500	11000
Trichloroethene	1300	52000	7300	280000
1,2-Dichloropropane	1300	920 J /5	6300	4300 J
cis-1,3-Dichloropropene	1300	Not Detected	6200	Not Detected
Toluene	1300	410000	5100	1600000
trans-1,3-Dichloropropene	1300	Not Detected	6200	Not Detected
1,1,2-Trichloroethane	1300	Not Detected	7400	Not Detected
Tetrachloroethene	1300	60000	9200	420000
Chlorobenzene	1300	Not Detected	6300	Not Detected
Ethyl Benzene	1300	36000	5900	160000
m,p-Xylene	1300	160000	5900	700000
o-Xylene	1300	52000	5900	230000
Styrene	1300	Not Detected	5800	Not Detected
1,1,2,2-Tetrachloroethane	1300	Not Detected	9400	Not Detected
Bromodichloromethane	1300	Not Detected	9100	Not Detected
Dibromochloromethane	1300	Not Detected	12000	Not Detected
Chloromethane	5400	Not Detected	11000	Not Detected
Acetone	5400	60000	13000	140000
Carbon Disulfide	5400	990 J /5	17000	3100 J
trans-1,2-Dichloroethene	5400	Not Detected	22000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5400	38000	16000	110000
4-Methyl-2-pentanone	5400	20000	22000	86000
2-Hexanone	5400	Not Detected	22000	Not Detected
Bromoform	5400	Not Detected	56000	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

CRS
11/7/03

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 OFS IN1 Dec4

ID#: 0312097AR1-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	104	70-130

CRS
11/7/03

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 IN1 Dec4

ID#: 0312097AR1-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	940	1900	2400	5000
Bromomethane	940	Not Detected	3700	Not Detected
Chloroethane	940	Not Detected	2500	Not Detected
1,1-Dichloroethene	940	1900	3800	7600
Methylene Chloride	940	37000	3300	130000
1,1-Dichloroethane	940	5600	3900	23000
cis-1,2-Dichloroethene	940	24000	3800	99000
Chloroform	940	3900	4700	19000
1,1,1-Trichloroethane	940	46000	5200	260000
Carbon Tetrachloride	940	Not Detected	6000	Not Detected
Benzene	940	30000	3000	99000
1,2-Dichloroethane	940	1400	3900	5800
Trichloroethene	940	33000	5100	180000
1,2-Dichloropropane	940	690 J 15	4400	3300 J
cis-1,3-Dichloropropene	940	Not Detected	4300	Not Detected
Toluene	940	230000	3600	880000
trans-1,3-Dichloropropene	940	Not Detected	4300	Not Detected
1,1,2-Trichloroethane	940	Not Detected	5200	Not Detected
Tetrachloroethene	940	38000	6500	260000
Chlorobenzene	940	Not Detected	4400	Not Detected
Ethyl Benzene	940	22000	4100	96000
m,p-Xylene	940	88000	4100	390000
o-Xylene	940	28000	4100	120000
Styrene	940	Not Detected	4100	Not Detected
1,1,2,2-Tetrachloroethane	940	Not Detected	6600	Not Detected
Bromodichloromethane	940	Not Detected	6400	Not Detected
Dibromochloromethane	940	Not Detected	8100	Not Detected
Chloromethane	3800	Not Detected	7900	Not Detected
Acetone	3800	30000	9100	72000
Carbon Disulfide	3800	970 J 15	12000	3100 J
trans-1,2-Dichloroethene	3800	Not Detected	15000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3800	18000	11000	54000
4-Methyl-2-pentanone	3800	9000	16000	38000
2-Hexanone	3800	Not Detected	16000	Not Detected
Bromoform	3800	Not Detected	40000	Not Detected

J = Estimated value.

185
117103

Container Type: 6 Liter Summa Canister

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 IN1 Dec4

ID#: 0312097AR1-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	94	70-130

OKS
11/7/03

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 IN2 Dec4

ID#: 0312097AR1-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	900	1000	2400	2600
Bromomethane	900	Not Detected	3600	Not Detected
Chloroethane	900	Not Detected J/UJ	2400	Not Detected
1,1-Dichloroethene	900	1700	3600	6800
Methylene Chloride	900	33000	3200	120000
1,1-Dichloroethane	900	5100	3700	21000
cis-1,2-Dichloroethene	900	18000	3600	72000
Chloroform	900	3200	4500	16000
1,1,1-Trichloroethane	900	40000	5000	220000
Carbon Tetrachloride	900	Not Detected	5800	Not Detected
Benzene	900	28000	2900	92000
1,2-Dichloroethane	900	1300	3700	5500
Trichloroethene	900	27000	4900	150000
1,2-Dichloropropane	900	660 J /S	4200	3100 J
cis-1,3-Dichloropropene	900	Not Detected	4200	Not Detected
Toluene	900	200000	3500	780000
trans-1,3-Dichloropropene	900	Not Detected	4200	Not Detected
1,1,2-Trichloroethane	900	Not Detected	5000	Not Detected
Tetrachloroethene	900	34000	6200	240000
Chlorobenzene	900	Not Detected	4200	Not Detected
Ethyl Benzene	900	20000	4000	90000
m,p-Xylene	900	87000	4000	380000
o-Xylene	900	30000	4000	130000
Styrene	900	Not Detected	3900	Not Detected
1,1,2,2-Tetrachloroethane	900	Not Detected	6300	Not Detected
Bromodichloromethane	900	Not Detected	6200	Not Detected
Dibromochloromethane	900	Not Detected	7800	Not Detected
Chloromethane	3600	Not Detected	7600	Not Detected
Acetone	3600	27000	8700	64000
Carbon Disulfide	3600	630 J /S	11000	2000 J
trans-1,2-Dichloroethene	3600	Not Detected	14000	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3600	17000	11000	50000
4-Methyl-2-pentanone	3600	9400	15000	39000
2-Hexanone	3600	Not Detected	15000	Not Detected
Bromoform	3600	Not Detected	38000	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

CRS
11/16/13

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 IN2 Dec4

ID#: 0312097AR1-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130

ERS
11/7/03

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 EFF 1 Dec4

ID#: 0312097AR1-05A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	1.4	53	3.6	140
Bromomethane	1.4	1.4 J / 5	5.5	5.4 J
Chloroethane	1.4	Not Detected / U T	3.7	Not Detected
1,1-Dichloroethene	1.4	200	5.6	810
Methylene Chloride	1.4	180	4.9	640
1,1-Dichloroethane	1.4	10	5.7	43
cis-1,2-Dichloroethene	1.4	75	5.6	300
Chloroform	1.4	79	6.9	390
1,1,1-Trichloroethane	1.4	45	7.7	250
Carbon Tetrachloride	1.4	2.1	8.9	14
Benzene	1.4	310	4.5	1000
1,2-Dichloroethane	1.4	5.0	5.7	21
Trichloroethene	1.4	160	7.6	890
1,2-Dichloropropane	1.4	0.97 J / 5	6.5	4.5 J
cis-1,3-Dichloropropene	1.4	0.81 J / 5	6.4	3.7 J
Toluene	1.4	410	5.3	1600
trans-1,3-Dichloropropene	1.4	1.1 J / 5	6.4	5.2 J
1,1,2-Trichloroethane	1.4	0.68 J / 5	7.7	3.8 J
Tetrachloroethene	1.4	240	9.6	1600
Chlorobenzene	1.4	5.2	6.5	24
Ethyl Benzene	1.4	26	6.1	120
m,p-Xylene	1.4	76	6.1	330
o-Xylene	1.4	26	6.1	110
Styrene	1.4	30	6.0	130
1,1,2,2-Tetrachloroethane	1.4	Not Detected	9.7	Not Detected
Bromodichloromethane	1.4	2.8	9.5	19
Dibromochloromethane	1.4	Not Detected	12	Not Detected
Chloromethane	5.6	36	12	76
Acetone	5.6	150	13	370
Carbon Disulfide	5.6	2.7 J / 5	18	8.4 J
trans-1,2-Dichloroethene	5.6	35	22	140
2-Butanone (Methyl Ethyl Ketone)	5.6	38	17	110
4-Methyl-2-pentanone	5.6	7.8	23	32
2-Hexanone	5.6	Not Detected	23	Not Detected
Bromoform	5.6	Not Detected	58	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

CRS
11763

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 EFF 1 Dec4

ID#: 0312097AR1-05A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	98	70-130

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 EFF 1 Dec4 Duplicate

ID#: 0312097AR1-05AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	1.4	55	3.6	140
Bromomethane	1.4	1.2 J /S	5.5	4.7 J
Chloroethane	1.4	Not Detected /S	3.7	Not Detected
1,1-Dichloroethene	1.4	210	5.6	830
Methylene Chloride	1.4	180	4.9	650
1,1-Dichloroethane	1.4	11	5.7	45
cis-1,2-Dichloroethene	1.4	73	5.6	300
Chloroform	1.4	79	6.9	390
1,1,1-Trichloroethane	1.4	44	7.7	250
Carbon Tetrachloride	1.4	1.9	8.9	12
Benzene	1.4	300	4.5	970
1,2-Dichloroethane	1.4	4.8	5.7	20
Trichloroethene	1.4	160	7.6	890
1,2-Dichloropropane	1.4	1.2 J /S	6.5	5.5 J
cis-1,3-Dichloropropene	1.4	0.97 J /S	6.4	4.5 J
Toluene	1.4	420	5.3	1600
trans-1,3-Dichloropropene	1.4	Not Detected	6.4	Not Detected
1,1,2-Trichloroethane	1.4	0.73 J /S	7.7	4.1 J
Tetrachloroethene	1.4	240	9.6	1700
Chlorobenzene	1.4	5.4	6.5	25
Ethyl Benzene	1.4	26	6.1	120
m,p-Xylene	1.4	80	6.1	350
o-Xylene	1.4	26	6.1	120
Styrene	1.4	32	6.0	140
1,1,2,2-Tetrachloroethane	1.4	Not Detected	9.7	Not Detected
Bromodichloromethane	1.4	2.5	9.5	17
Dibromochloromethane	1.4	Not Detected	12	Not Detected
Chloromethane	5.6	38	12	79
Acetone	5.6	160	13	380
Carbon Disulfide	5.6	2.8 J /S	18	9.0 J
trans-1,2-Dichloroethene	5.6	36	22	140
2-Butanone (Methyl Ethyl Ketone)	5.6	39	17	120
4-Methyl-2-pentanone	5.6	7.4	23	31
2-Hexanone	5.6	Not Detected	23	Not Detected
Bromoform	5.6	Not Detected	58	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

CBS
117103

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 EFF 1 Dec4 Duplicate

ID#: 0312097AR1-05AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	98	70-130

CRS
11/16/13